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## ORIGINAL ARTICLES.

### GOUTY AND RHEUMATIC AFFECTIONS OF THE EAR.


BY SEYMOUR OPPENHEIMER, M.D.,

OF NEW YORK;

ATTENDING LARYNGOLOGIST TO BELLEVUE HOSPITAL, OUT-PATIENT DEPARTMENT; ATTENDING LARYNGOLOGIST TO THE UNIVERSITY MEDICAL COLLEGE DISPENSARY.


THE more or less intimate relationship existing between gout and rheumatism, in this country at least, and the conflicting theories suggestive of the etiology of the two diseases, precludes a separate consideration of each when studied as to the effects produced on the auditory apparatus. For the purpose of describing the local effects of these diseases as especially concerning the otologist, we may in general consider the two as one affection, except in a few instances, which will be discussed in their appropriate place.

We must consider rheumatism as partaking of two forms, the acute and the chronic, the ear being occasionally involved in both varieties. In the acute form the joints are the parts mainly affected; there is hyperemia and swelling of the synovial membrane and the ligamentous tissue, the fluid lubricating the joint becomes turbid, albumin, and fibrin being present in increased amount. In chronic rheumatic affections involving the joints the synovial fluid is diminished in amount, the cartilages are thickened, as is also the capsule surrounding the articular surfaces, the sheaths of the tendons in the immediate vicinity of the involved joint undergo similar alterations, and the movements not only of the joints, but also of the neighboring muscles, are restricted. In addition to this, in the form under consideration, the nerves supplying the parts undergo pathological change, and consequently, from the peripheral neuritis resulting, nutrition and innervation suffer, and atrophy of the affected parts, and especially of the muscles, supervenes. The blood-vessels also become the seat of a slowly developing sclerosis, adding to the changes already observed.

In the study of the morbid anatomy of gout an excess of uric acid is found in the parts directly involved by the disease. This extraneous substance, acting as an irritant, produces a local coagulation necrosis, with inflammation, hyperemia, swelling of the ligamentous tissues, and effusion into the joint.

A study of the histologic structures of the auricle and external auditory canal reveals the presence of a large amount of fibrous tissue and cartilage, the two tissues especially susceptible to the morbific influences of the affections under consideration. The middle ear consists essentially of a cavity with two openings, the Eustachian tube anteriorly and the antrum and attic posteriorly. Enclosed in this central cavity are the ossicles with their minute and complicated system of articulations, the stapes with the fenestrum ovale, the incus with the stapes and malleus, and the malleus with the incus, membrana tympani, and wall of the tympanic cavity. The mucous membrane of the middle ear being closely adherent to the bony walls in part replaces the periosteum, and with its numerous folds divides the cavity into a number of secondary spaces. Concerning the inner ear, the blood-vessels only need be considered, the injurious effects of gout and rheumatism upon this portion of the auditory apparatus depending upon changes in the vessels, and rarely affecting the delicate nerve-filaments of the parts.

Although gouty and rheumatic affections of the auricle were studied many years ago, it was not until 1849 that W. Harvey, in a systematic paper, directed special attention to the morbid changes noted in the auditory apparatus resulting from these affections. He called attention to the fact that both gout and rheumatism affect the ear without any other changes in this organ being present, and also observed that the ear, already the seat of other pathological alterations, is liable to be affected in gouty subjects, thus in a way changing the character of the disease previously existing.

Accurate statistics as to the frequency with which the ear is affected are not easily obtained, the general opinion, however, being that the internal ear and auditory nerve are very rarely affected, the tympanic cavity and membrana tympani more often than is generally supposed, while the external auditory canal and auricle are quite commonly influenced by the general affections. Especially will this relationship be evident if a careful history be obtained in all ear diseases coming under observation. Dench[1] says that gout and rheumatism exert more influence on the ear than is commonly supposed, and that it is not necessary that there be constitutional evidences of the two affections, but the ear may be affected through a hereditary diathesis. The susceptibility of the ear in certain individuals to the

injurious effects of gout and rheumatism is explainable by the large amount of fibrous tissue composing portions of the auditory apparatus, the selective powers of these diseases, as has been seen, being well marked for this form of tissue, entering as it does into the composition of the larger part of the auricle and external canal, and forming to a great extent the important ossicular articulations. Richey,[3] in a paper on this subject, considered that the minute joints of the ossicles are liable to attacks of rheumatic arthritis from their exposure to atmospheric changes. That the rheumatic diathesis manifests itself in acute exacerbations as the result of sudden or prolonged alterations in the humidity of the atmosphere is well known, and no reasons exist when the disease is apparently limited to the joints of the ossicles why it should not show itself here, as it does in other articular surfaces of the body.

From the otologist's point of view we are concerned with gout and rheumatism as being either hereditary or acquired. The acquired form of the disease, as seen in the usual way and due to causes originating in the affected individual, manifests itself in the aural apparatus in various ways, being either clearly defined and then readily recognized, or may simply show itself as alterating the character of some diseased process already present in the ear. The obstinate character of many ear troubles, especially eczema of the external auditory canal, and serous middle-ear catarrh is due in a considerable proportion of cases to the gouty or rheumatic diathesis. Hereditary gout, as observed in this location, may appear a short time after birth or later in life, the first rarely, but during adult life much more commonly. D'Aguanno[3] reported three cases of tardy hereditary gout of the ear in which deafness developed as soon as the patients arrived at the age of puberty. No other causes for the affection were found, and the nose and nasopharynx presented no deviation from the normal. The father had been affected with the gouty diathesis for years, and as the result of D'Aguanno's study of these and similar cases, he concluded that among the ordinary forms of hereditary gout of the ear there is a late variety which usually manifests itself at the age of from fifteen to twenty years.

Aural involvement from both affections occurs most often in advanced life and in males; this is especially so as regards the serous form of otitis, while the chronic sclerotic variety of middle-ear disease dependent upon rheumatic diathesis is not seen at any definite age, but occurs most frequently in the female sex, and is associated with muscular rheumatism. Acute myringitis depending upon the acute form of rheumatism and gout occurs at any time, age and sex apparently bearing no relation to this complication. Destructive processes of the middle and internal ear occur most frequently in males and at an advanced period of life, the patient suffering from the rheumatic or gouty diathesis a number of years before the ear becomes involved. General evidences of rheumatism may not be present, the auditory apparatus being affected primarily, and on the subsidence of the aural inflammation the nature of the disease will be seen by the occurrence of rheumatism of one or more large joints of the body. In gouty patients well-marked evidences of the disease elsewhere are usually found before the ear becomes affected, although the hereditary form may not show itself anywhere but in the ear for a considerable period. In the large proportion of patients suffering from well marked gout liability to occasional subacute dermatoses of the meatus is observed.

Both gouty and rheumatic affections objectively and subjectively differ considerably when various parts of the auditory apparatus are affected. The auricle is very commonly the seat of deposits of nodular urates in gouty subjects; these crystals or amorphous masses are generally situated underneath the skin of the helix, and do little harm; occasionally from pressure inflammation is produced, the cause being recognized by the presence of a foreign body underneath the cutaneous surface. In both gout and rheumatism of long standing the external auditory canal is frequently affected with a localized, subacute form of eczema, mild in character, but very resistant to treatment, and leading to changes in the cutaneous lining. In many cases of eczema in this locality treatment as usually applied is of no avail, and the patient improves only after constitutional measures directed to the primary disease have been instituted. The eczematous patch presents nothing of a diagnostic nature, a history of the case as regards the presence of gout or rheumatism, and the results of treatment alone allowing a proper diagnosis to be made. Resulting from denudation of the cutaneous lining of the canal and the increased moisture present there is a considerable tendency to the development of vegetable parasites on the eczematous area.

Toynbee[4] referred osteomata of the canal to the gouty-rheumatic diathesis, and although exostoses occur in this locality quite frequently in individuals of this class, yet no direct causal relation has been fully established. From the deposit of urates under the skin of the meatus a furuncle forms, while in severe attacks of rheumatism a general condition of furunculosis of both external auditory canals is occasionally seen. The membrana tympani is rarely affected without the middle ear at the same time be-

ing involved, but occasionally during an acute, violent attack of gout transitory pain of the ear will be complained of, lasting for a few hours and rapidly passing away. If the membrana tympani be examined, intense congestion of the manubrial plexus will be seen, the middle ear apparently not being involved, but when it is affected the membrana tympani also participates in the morbid process. Both rheumatism and gout, but especially the former, produce their marked effects on the tissues of the tympanic cavity; these changes are varied, but in general may be divided into two main divisions; first, an acute and destructive process, and, second, a chronic and insidious affection.

Acute rheumatoid otitis occurs during an attack of acute rheumatism; intense pain is complained of in the affected ear, paroxysmal in nature and affecting the entire side of the head, tinnitus, slight at first, increasing in intensity until the patient is almost distracted with the sounds in his head, and when the pain subsides there is a feeling of numbness of the affected ear and of the same side of the head. On examination of the middle ear under good illumination the drum-membrane will be seen to be intensely red and differing from the color usually observed in acute myringitis, being of the shade known as flamingo. If the treatment is successful the affection rapidly subsides, and the ear may speedily become normal, or a moderate amount of deafness may last for a few weeks. Uncontrolled, the affection increases in intensity, pus is developed, and necrosis of the bone may result, the mastoid possibly becoming involved. This violent, acute form of rheumatic inflammation may lead to entire destruction of the ossicles and adjacent bone. Again, the acute form may vary in a most striking manner in different individuals, being in no way affected by the intensity of the disease elsewhere, although should a number of joints be inflamed at the same time the tendency to ear involvement is decidedly increased. In other cases it may manifest itself by redness of the drum-head, moderate degree of deafness, and a feeling of stuffiness in the ears, pain and tinnitus being entirely absent. This condition remains for a few days, the usual treatment being of no avail, and then disappears without apparent cause, only to return when another rheumatic attack is imminent. A third form is characterized by intense pain only, the middle ear on inspection apparently being normal, while the tympanic membrane will give no evidence of the presence of disease of the parts; impairment of hearing, and, in fact, all the symptoms of acute otitis, except the pain, are absent. This may last for an indefinite time, and relief will not be obtained until the rheumatic condition is ascertained and proper general antirheumatic remedies employed, for local treatment seems useless. As a result of these acute processes in the middle ear, marked alterations in the functions of the parts will result, but they differ in no way from those observed after non-rheumatic inflammations, and need not concern us here.

Slowly progressing changes in the tympanic cavity occur both from gout and rheumatism, and are independent of the acute affections just described. These changes usually develop early in an acute exacerbation of long-standing rheumatism, the fibrous tissue being primarily involved and, finally, the nervous tissues participate in the pathological process. There are usually two distinct chronic affections involving the middle ear in which the gouty-rheumatic diathesis exerts a great amount of influence as a causative factor. The most common of these is chronic sclerosis of the drum-cavity, the fibrous tissues being especially involved. Previous to the sclerotic changes becoming characteristic, there is an initial semiacute form of inflammation present. This occurs during an attack of the general disease and continues in the interval. The membrana tympani is neither normal nor red in color, while other symptoms are absent until the ossicular articulations become ankylosed and marked fibroid changes render the functions of the parts less and less acute until deafness becomes almost, if not quite, complete. This form of middle-ear sclerosis differs only in its etiology from that due to other causes, but it should be remembered that, as a result of gout and rheumatism, the latter especially, the brunt of the disease is borne by the joints of the ossicles, and therefore serious damage to the hearing will eventually result.

The other form of otitis in which these general affections exert a distinct influence is that characterized by a watery, serous discharge from the middle ear. Pus is never present, and the affection is not always confined to the middle, but frequently invades the external ear. Sexton[8] says that the serous form of otitis media is found nearly always in rheumatic or gouty subjects. The progress of the disease is slow, months and years passing before cure is complete, and relapses are frequent, depending upon the presence or absence of the constitutional disorder.

The delicate structures of the labyrinth and cochlea apparently do not participate in the morbid process, except when the middle ear and adjoining parts undergo extensive necrosis the result of a severe attack of rheumatism. As an indirect internal ear involvement, however, changes in the vestibule and cochlea are occasionally found resulting from arteriosclerosis of the minute vessels ramifying

through these regions. As the result of long-continued rheumatism in advanced life there is a considerable degree of degeneration of the arterial walls throughout more or less of the entire arterial system, the peripheral vessels supplying special organs, such as the one under consideration, from their small caliber and delicacy, being less resistant to these degenerative processes. In the internal ear these changes are occasionally manifested, the structures composing the arterial walls becoming degenerated and rigid from deposits of lime salts. From the diminished resistance of the diseased vessels to an increased blood-pressure rupture occurs, and the ordinary symptom-complex of labyrinthin hemorrhage is produced. The patient complains of irregular subjective forms of tinnitus with impairment of hearing and vertigo, varying with the amount of destruction in the internal ear. When the vessel-wall ruptures these symptoms appear very rapidly, but may rarely develop in an insidious manner, several months elapsing before becoming well defined, and in this case the blood is not poured out through a rupture of the arterial wall, but escapes by capillary oozing.

Rheumatic paralysis of the auditory nerve has been described by McBride[6] as occurring during the course of acute rheumatism; deafness is marked and bone conduction is diminished or lost, but vertigo does not always occur. The affection is but temporary, and as the general disorder subsides the aural symptoms gradually disappear, a slight impairment of hearing alone remaining.

The diagnosis of these changes in the auditory apparatus is readily made if attention be directed to the etiologic influences of the gouty-rheumatic diathesis in all stubborn cases of the various forms of ear affections. The prognosis will, of course, depend upon the original cause of the ear affection, in general being good in both gout and rheumatism, and depending upon the promptness with which general treatment is instituted. Local treatment, except in acute inflammations, is of little value, general antirheumatic medication alone being of service.

Bibliography.

[1] Dench, "Diseases of the Ear."
[2] S. O. Richey, *Trans. Ninth Internat. Med. Congress.*
[3] D'Aguanno, *Revue Internat. de Rhin., Otol. et Laryng.*, September, 1896.
[4] Toynbee in Burnett's "System of Diseases of Ear," etc.
[5] Sexton, "Diseases of the Ear."
[6] McBride, "Diseases of the Nose, Throat, and Ear."

***A New Chemical Substance.***—Dr. Becquerel of Paris, on behalf of the discoverers, Curie and Bremona, has announced to the Academy of Sciences, the discovery of a new chemical substance akin to barium. It is sensitive to light and has been named radium.

## THE TREATMENT OF HYSTERIA.

By DARWIN R. STOCKLEY, M.D.,
of Evanston, Ill.

The term "hysteria" is applied to an unusually varied group of manifestations of functional disturbances of the nervous system. Defective hereditary endowment, unequal and inharmonious development, improper training, and unfavorable environment are among the predisposing factors. Exhibitions of lack of will power, of excessive emotional disturbance, of extreme susceptibility to external impressions, of great fondness for sympathy, and of a surprising simulation of other diseases are among the characteristic symptoms. The potentiality of hysteric symptoms is possessed by every one, and under favoring circumstances will be manifested. It is only in degenerates that hysteria becomes a disease. The frequent close resemblance to other diseases, and the common association of symptoms with those which have an organic basis render the recognition of hysteria a problem of great difficulty.

While the prognosis of hysteric manifestations is not unfavorable, the successful treatment of the disease requires more tact, skill, and patience than any other disease of the nervous system. The physician may first see the patient in a hysteric convulsion accompanied by one or more of the "stigmata." His first duty is to protect the patient from violence. Mechanical measures are usually employed, the mind of the patient controlled by suggestion of the physician, and a tranquil, hypnotic state induced. Apomorphin is a favorite remedy for speedily clearing up a hysteric paroxysm. It is an essential preliminary to dismiss from the presence of the patient all sympathizers and other unnecessary persons.

Treatment of the disease itself cannot begin too early, even *in utero*, and by surrounding the hysteric mother with a tranquil and unemotional environment much can be done before the birth of the child which shall contribute to its better-balanced nervous organization. Before the child of such a mother reaches the age of ten years, for the benefit of both it should be placed beyond her direction and control. In the education of such a child the advice of the physician should be sought and uniformly followed, and every effort made to properly train its will and emotions. Children of hysteric parentage are inclined to precociousness, morbid sentimentalities, mawkish sympathies, and abnormal sexual propensities. The successful treatment of such symptoms is in line with our modern educational methods, by which healthy out-door sports are encouraged, precepts of patriotism instilled, and

generous feelings and hopeful sentiments inculcated. The democracy of the schoolroom and playground puts the mind of the hysteric child into balance, and he acquires self-control in adjusting himself to other and healthy minds. Thus healthy ambitions take the place of abnormal self-indulgence.

No physician can be successful in treating hysteria who does not first win the confidence of his patient. A firmness that is not sternness, a kindliness that stimulates, a sympathy that offers no encouragement to emotional outbursts, an exhibition of control by suggestion are among the attributes of the physician for the successful treatment of this disease. To secure the best results the patient must be removed from home and from all the influences which have produced and which tend to perpetuate the morbid condition of the mind. Equally imperative is the employment of a proper nurse, one who can follow the directions of the physician. The so-called "trained nurse," taught to search for objective symptoms, will, by her methods of precision, furnish the patient's mind with new symptoms, and thus aggravate the disease by suggestions. Aside from suggestions by the physician in the control of an acute attack, there are no permanent results from the treatment of hysteria by suggestion. This is due to the ineffectual control which the patient has over his emotions. The "rest-cure" has value when properly managed in the initial treatment of the severe forms of the disease, but an improvement in general nutrition under any treatment that is unaccompanied by mental gain is not a cure of hysteria.

The possibility of a physical cause for a hysteric attack should be recognized, and the disturbing factor removed. Sedatives and antispasmodics are often indicated, and malnutrition will call for the usual tonics. Hydrotherapy is enjoying not too much distinction for its beneficent effects in treatment. Hypnotism, electricity, extreme shock, and vile drugs can offer no other than a temporary relief through the patient's extreme susceptibility to suggestion. Surgical procedures, especially upon the generative organs, except for the purpose of restoring a pathologic condition, are unscientific, and it is well contended that not a single cure is recorded as the result of removal of healthy sexual organs. The one bright, particular ideal to which all methods for the treatment of hysteria tend, is to secure in the patient a fixed resolve to accomplish some unselfish purpose. The physician and the nurse, ever on the alert for the manifestations of such a purpose, will encourage its development by every means in their power, knowing that an active spirit working outside of introspective and morbidly selfish aims has no room for the development of hysteria.

## THE LOCAL MEDICAL SOCIETY; A PLEA FOR ITS BETTER SUPPORT.[1]

BY GEORGE L. RICHARDS, M.D.,
OF FALL RIVER, MASS.;
OTOLOGIST AND LARYNGOLOGIST TO THE FALL RIVER AND EMERGENCY HOSPITALS.

WHY have a medical society? What is the end in view; the advantage to its members and the profession of medicine? Every community in which there is a number of physicians should have its medical society, and where the number is small the physicians of the district can combine and form a district society. Physicians lead busy lives, and, as a rule, meet socially but seldom; for they never all belong to the same church, the same secret society or organization, the same club, the same political party; hence, the local medical society is about the only place where they can all meet on the common ground of interest in their chosen profession. Here all differences of race, religion, and party are laid aside and forgotten, and all meet as equals and brothers. This association one with another is invaluable. The public, always erratic and constantly changing its doctor or misunderstanding him is liable to say to another doctor something unpleasant from which jealousies and ill feelings may, nay often do, arise. At the medical society meetings many a slight misunderstanding or feeling of jealousy is readily adjusted, and two physicians, each of whom may have felt aggrieved with the other, are after a few moments of personal conversation the best of friends. The same matter discussed by the public would very likely have brought about permanent estrangement.

We have all heard remarks like the following: "Dr. A. played me a mean trick in that case." If asked, "Have you seen Dr. A. about it?" the reply is, "No, we have not met since." Ten to one if the two men are regular attendants at the local medical society meetings one or the other will refer to the incident the next time they meet there, and after a few minutes' conversation each will be satisfied. I firmly believe that most of our differences with one another arise entirely from misunderstandings, frequently helped by our patients, who often misquote medical men. Their reply to the question, "What did the doctor say?" should always be taken with some reservation. This is due to ignorance of medical matters rather than to deliberate intention. Then it is so easy to blame the man who is not there, especially in the presence of another physician. We often hear it said that physicians never agree. While the remark is not strictly true, there is something of truth in it. Under the influence of the medical society there comes more and

[1] Read before the New Bedford Medical Society, October 17, 1898.

more of agreement, since close association is bound to make us know each other better, heal the wounds and make us all mutually helpful. We could not say of a brother member with, it may be, a shrug of the shoulders, "I do not know him," letting our auditor infer what he pleases.

To the man just entering the profession the medical society is of great benefit. He is loth to join it, because he feels overshadowed by Drs. B., C., and D., whom he regards with some awe, combined with fear as to what they may say if called to see one of his patients. He joins the society and reads his maiden paper. Soon, it may be, our young doctor has a case which troubles him; he feels that the patient is doing all right, that his diagnosis and treatment are correct, and if only the family does not get unduly alarmed and call in another doctor all will go well. One day he is informed either that they wish Dr. B. to see the patient or he goes only to find that Dr. B. has already seen him and he is discharged. "So young, you know; we could never forgive ourselves if anything serious should happen, etc." Now what results if Dr. B. has met our young doctor, whom we will call Dr. X., in the medical society? What will he say to the mother, when she expresses her fears regarding the age of Dr. X., his inexperience and treatment? "You see, doctor, we only called him in because he was handy and we did not think there was much the matter. We always prefer you if there is anything at all serious." When this is said to Dr. B. he will in all probability answer, "Yes, I know Dr. X.; he is a member of our sociey and read a valuable paper before it the other evening. He is one of our coming young men. I am sure what he has done is all right." Whether the case goes back to Dr. X. or not makes little difference. Dr. B. has helped Dr. X. That family feels kindly toward him. The mother will tell her next-door neighbor how well Dr. B. spoke of Dr. X. and his fame will spread. Those few words of the older doctor have helped him far more than the value of the case he has, it may be, lost, as he will quickly find out. And Dr. B. has done only what he ought to have done; what, if a gentleman, he could not help doing. This is not at all a fanciful circumstance but an actuality. Of all persons in the profession the medical society is most needed by the younger members and recent graduates.

The general standard of the profession is raised by the medical society and members are sometimes kept by it from doing things they might under other circumstances be tempted to do. Each physician should have the honor of every other member of the society at stake. The answer to calumny would be, "That cannot be so; Dr. J. is a member of our society; he would not stoop to such a practice." All good men in the profession should be welcomed as members and made to feel that they are wanted. Carefully look up the character and attainments of members. Require that they be graduates of good schools and likely to be men of honor to the society and the profession. Do not make admittance too easy. Let character and professional attainments be the only qualifications required. Bad conduct should debar from membership and very bad conduct in members should be punished by expulsion.

To many members the paper is a bugbear and the remark will be heard, "I can not write a paper," or diffidence will be expressed as to what the older men will think about it. "Nothing to write about; no opportunities to see interesting cases," and similar excuses are offered. These excuses have no force. There is no physician who cannot write a good acceptable paper, one profitable to his hearers; no doctor who cannot carefully prepare and report a case, the discussion of which will make an interesting meeting. Take the common subjects, those that come up in daily life, and make them attractive, giving always a personal flavor to the paper. At a recent society meeting a member read a paper on acute cystitis based on his personal experiences with the disease as patient as well as physician. The ailment is a common enough one, yet an interesting discussion followed and points of great practical benefit not often found in the text-books were brought out. The youngest graduate can bring something of the latest methods as taught in the schools while the older members can give from the rich storehouse of their experience. Avoid a text-book style. Study the subject thoroughly, and the more work put on it the better, then write the paper in your own language and in your own way, making it your individual paper. Write in advance of the time needed; better work is done and there is no hurry at the end. There is usually no excuse for a hurried or poorly prepared paper, since the assignments are always made a sufficiently long time in advance. "I did not know until yesterday that it was my turn to read" is no excuse. Make the paper as good as you can. You will be pleased if you have an audience worthy of yourself and your subject. Never regret the time spent in preparation whether the audience present is large or small. The preparation has always done the author more good than it has any of his hearers. The chances are that he knows more of the subject about which he has written than he ever did before.

And as you will be disappointed if there are but few present when you read, remember that the same thing will hold true of the other man when he reads,

hence, it is your duty to be present if possible at every meeting. Physicians are busy men, nevertheless, it is my opinion that the great majority of the members of any medical society could be present at every meeting if they chose to make a little effort. Neither distance, engagements, nor any other of the numerous excuses offered would interfere with their coming if they really wanted to come. Frequently the busiest men are the most regular attendants. Granted that every member will occasionally have to be absent it is, nevertheless, true that a medical society meeting at 8.30 P.M. ought to be able to get together the greater portion of its members at each meeting. A good attendance adds to the enthusiasm and helps very much in making the meetings a success. When papers are read a full and free discussion adds to the profit and the interest. The reader would prefer to have his paper freely discussed even if radically disagreed with. Fifteen minutes spent in looking up the subject preparatory to the meeting would make every member familiar with it and a meeting which might otherwise have been dull becomes entertaining to everybody.

Whether a permanent room shall be hired, journals taken, or an attempt at collecting a library be made, will depend on the number and desires of the members. Whatever the dues they should be kept paid up. It is the only fair way and the effect on the society of members in arrears is bad.

It may be objected, "It is not worth the cost." "There is nothing I can learn from those men." To this I would reply that it is well worth the cost for social and companionship reasons alone; it is worth the cost to know each other better; and for scientific reasons it is worth the cost. Economize somewhere if need be, but never stay away from the medical society because of the cost of membership. As I recently heard it expressed, "A physician who can get no good out of the medical society is either way above or way below the average of his fellows." "I can read better papers in the journals." Granted; and yet there is a life and a fire to a paper read by its author which is lacking when the same is read in print. Furthermore, we ought to be ambitious to write as good a paper as any one else.

Competition in medicine becomes keener every year and the struggle for existence harder. The survival of the fittest is bound to come and the laggard will be left behind. The medical society is a means of keeping ourselves in the van, in the fore most ranks of the profession.

Enthusiastically supported by its members, the regularly attended medical society is a post-graduate school always in session and of inestimable value to its members.

## CLINICAL MEMORANDUM.

### MYOTONIA CONGENITA (THOMSEN'S DISEASE); REPORT OF A TYPICAL CASE.[1]

By GEORGE J. PRESTON, M.D.,
OF BALTIMORE, MD.;
PROFESSOR OF NEUROLOGY IN THE COLLEGE OF PHYSICIANS AND SURGEONS OF BALTIMORE.

THIS interesting and rare affection was first clearly described by a German physician, J. Thomsen, about 1876.[2] Prior to this, cases of what must have been this affection were described by Sir Charles Bell, Benedict, and others, but these descriptions were imperfect and somewhat vague, and it was not until Thomsen's paper appeared that the disease was clearly differentiated from conditions of muscular cramp. In studying the literature of this disease many cases must be rejected if one follows the original description of Thomsen. A large number of the recorded cases, as Jacobi has pointed out,[3] are either cases of organic disease of the nervous system or instances of what this author calls "myotonia acquisita," and have nothing in common with the congenital form of the disease as it was first described. I regret that the following report is not more complete, but the patient was sent to me from another State, and I had no opportunity to study the case as I would like to have done.

Mr. H., aged twenty-one years, consulted me in March, 1898. He looked perfectly healthy, and an examination failed to reveal disease of the thoracic or abdominal viscera. He complained of slight dyspeptic symptoms and some headache. The urine was normal. He had had the usual diseases of childhood. His mother was nervous and subject to neuralgia. She had had some sort of "cramps" just before the birth of the patient, but they did not continue long. Her father died of "paralysis"; her mother had lived to the advanced age of 102 years. The family of the patient's father was exceptionally healthy. As far back as he could remember the patient had had cramps in his muscles whenever he made any sudden movement. His father, who was with him, corroborated this statement, saying that this condition of muscular cramp has been present from the time that he had begun to make voluntary movements. He had never been able to indulge in games with other children, for, upon any sudden exertion, the cramps would come on. If he began to run the cramp would seize the muscles of his leg and he would fall. When he doubled up his fist it was some seconds before he could open his hand. When he grasped my hand he did so with force, but was not able to let go for some seconds. When he wrote he found it difficult to let go of the pen. If he suddenly extended or flexed the leg the muscles contracted strongly, though without pain, and it was only after several seconds that the muscles relaxed. If he closed his eyes tightly he could not open them at once. He said that if he looked fixedly at an object his eyes became "set," and he could not read long at a time. At times his eyes rolled up to such an extent that only the

[1] Read before the Baltimore Neurological Society.
[2] *Arch. für Psych.*, vi, 1876.
[3] *Jour. of Nervous and Mental Diseases*, vol. 25.

whites were visible. The abdominal muscles were also involved.

Examination of his nervous system showed normal strength and no muscular atrophy; on the contrary, the muscles were unusually well developed. There was no disturbance of sensation. The reflexes, superficial, deep, and pupillary were normal. Examination of the eyes showed the discs and retinæ to be normal. The muscular spasm was not brought on by mechanical stimulation of either muscle or nerve. The electric examination could only be made once, and showed the reaction to the faradic current much below normal, while the reaction to the galvanic current was increased, and the anodal closure was distinctly stronger than the cathode closure. I was not able to demonstrate the peculiar slow contraction of the muscles to the faradic current.

The patient thought that his condition was rather worse in wet weather, but he had never had any rheumatic symptoms. His condition had remained practically unchanged, though he thought that during the past few years he perhaps had been a little worse. The various points in the history were corroborated by his father.

It will be noted that these symptoms had been present since birth, and that there were no other members of the family similarly affected. The symptoms described as "cramps" which affected the mother before the birth of the patient should be disregarded, since they did not persist any great length of time, and probably would not have been noticed but for the subsequent development of muscular spasm in her child. The question of heredity is an interesting one; undoubtedly in some cases there is a marked hereditary predisposition to the disease. In Dr. Thomsen's family, for example, all four of his grandfather's children were affected, two markedly, two slightly. Of thirteen children borne by his mother, seven were affected, and four of his five sons were subjects of the disease. Other cases of either direct or indirect hereditary influence might be mentioned. More often the disease seems to show itself in several members of the same family without any distinct heredity. Again, as in the case here recorded, the affection may appear in only one member of a family. Such a comparatively short time has elapsed since the recognition of the affection that it is impossible to speak definitely as to the heredity, since the parents or grandparents of the subjects whose cases have been studied might have had the disease without its having been recognized.

The symptomatology, which is well illustrated in the case reported above, consists in a rigidity, remaining for some seconds after voluntary contraction of the muscles. The arms and legs are most often involved, but almost any of the muscles may participate. In my patient the abdominal muscles were affected, though not to as great an extent as the muscles of the extremities. The muscles of deglutition, micturition, defecation, respiration, or parturition do not seem to be involved in any case of the disease. The muscles may be of normal size, or there may even be an apparent slight hypertrophy present. The contraction is usually much worse after a period of rest; this was very noticeable in the case of my patient. The reflexes are unchanged, and there is no disturbance of sensation. In the pure cases of Thomsen's disease there are no symptoms pointing to an involvement of the nervous system. As has been remarked, when the nervous system is distinctly involved the case is not to be regarded as belonging to the form here described. The faradic aud galvanic excitability is normal or nearly so when the stimulus is applied directly to the motor nerves, but markedly increased when the current is applied directly to the muscles. Erb describes a peculiar undulating contraction following the application of a strong faradic current to the muscles. The same rule holds with regard to mechanical stimuli, namely, normal when applied directly to the motor nerves and somewhat above normal when applied to the muscles.

The etiology of this affection is very obscure; it is certainly a family disease and probably has also a more or less marked hereditary tendency. Males are more often affected than females. The prognosis, judging from the recorded cases, is uniformly bad. No case of recovery has been reported, though there would seem to be no special danger to life. Much interest centers around the pathologic findings, since the point to be decided is whether this is a disease of the nervous or the muscular system. The only autopsy that has been reported is that performed by Dejerine and Sortas, and as Jacobi points out, this autopsy was far from satisfactory, since the patient in addition to the myotonia had several other complications. In a number of cases, however, bits of muscle have been excised and examined. In general, the muscle-fibers in myotonia congenita are from two to four times the normal size; the border of the fiber is curved and the nuclei of the sarcolemma are increased. It has been noted, also, that the transverse striation is markedly indistinct. Jacobi has noted a "massing together of sarcous elements, and a correspondingly coarse appearance in some parts of the muscle, while in others the elements are minute."

Some authors have claimed that there is a distinct psychologic element in the symptomatology of this affection, but this observation lacks confirmation. In my case there certainly was no trace of mental enfeeblement. In the absence of any findings in the spinal cord or brain, together with the lack of symptoms pointing to brain or cord lesion, it seems to me the disease should be regarded as a faulty evolution of the muscular fibers. This view is in part confirmed by the fairly constant changes which have been observed in the excised muscle. It is interesting to observe the similarity which exists between this disease and muscular dystrophy. In both diseases there is a hereditary or at least a family tendency, both present somewhat similar changes in the muscle, and in neither would there seem to be any primary lesion in the brain or spinal cord. The various therapeutic measures which have been empirically suggested have never proved of the least value.

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***Hospital Appointment.***—Dr. R. G. Wiener has been appointed visiting-physician to the Harlem Hospital, New York.

# MEDICAL PROGRESS.

***Remissions in Epilepsy.***—SINKLER (*Jour. Nervous and Mental Dis.*, August, 1898) has collected reports of twenty-four cases of idiopathic epilepsy in which there were remissions varying from two to twenty-nine years. All of these cases occurred in his own practice and that of a friend, and in a hospital upon which he was in attendance. The consideration of these cases in which, after prolonged intervals, even as long as twenty-nine years, there has been a recurrence of the disease, forces one to the conclusion that it is not justifiable to consider any case of epilepsy cured, no matter how great has been the interval of freedom from attacks and appearance of normal health. Notwithstanding this unfavorable conclusion, the study of these cases brings out a fact which is satisfactory, for it shows that remissions of many years' duration may occur, in which the patient is in normal health, and is able to pursue his life as if he had never suffered from epilepsy.

***Removal of the Whole Stomach for Cancer.***—RICHARDSON (*Boston Med. and Surg. Jour.*, October 20, 1898) removed the whole stomach of a woman aged fifty-three years, who had for one year given evidence of cancer of the stomach. There was no ascites, and the tumor at the time of operation was plainly felt. Upon opening the abdomen it was seen that a considerable part of the stomach was involved, and but for the brilliant successes of Schlatter and Brigham removal of the tumor would have been abandoned. Examination showed that the duodenum could be brought to the esophagus, and as the disease was limited to the stomach, total gastrectomy seemed to be justifiable in this case if it ever is. The omentum was first divided and tied, exposing the posterior gastric wall. The duodenum was divided after it had been tied at the pylorus to prevent the escape of gastric contents. The attachments of the lesser curvatures of the stomach were tied and divided, and finally the stomach was cut away from the esophagus. The bell-shaped opening was too large for the opening into the duodenum, and was reduced by a few interrupted sutures. There was some difficulty in bringing the duodenum and esophagus together so that the attachments of the duodenum had to be partially divided. There was very little shock after the operation, and no vomiting, although considerable gas was raised. The patient began to take water by mouth on the second day, milk on the fourth day, egg on the sixth day, and after that a liquid diet. The recovery was apparently perfect. Two months later there was no evidence of recurrence, and a drawing sensation in the epigastrium, which had caused a slight stooping, had entirely disappeared.

Richardson thus sums up the problem which a patient with such malignant disease has to consider:

1. The suffering incident to the disease. (This may vary between discomfort and unendurable pain.)

2. A hopelessness and mental depression to which death is in many instances preferable.

3. Certain death.

If subjected to a radical operation the patient has before him:

1. The dangers and sufferings of a surgical operation. (But, though the danger is great, the suffering may be no greater—it may even be less—than the suffering incident to the disease.)

2. Hope and elevation of spirits instead of mental depression and despair.

3. A fair chance of a recovery that may be permanent, though recurrence may be the rule.

A careful consideration of this question in favorable cases leads to but one conclusion, namely, that the greatest good will follow reasonable surgical interference. The chief arguments against radical measures seem to be in the necessarily great dangers of the operation, and the uselessness of deliberately incurring them. Certainly, no method of treatment is justifiable which is useless. But the operation in suitable cases is by no means useless, as shown (1) by the lessening of suffering and the prolongation of life, facts observed by physicians and friends, and (2) by the satisfaction expressed by the patient himself.

***Cure of Obesity by the Method of Schweninger.***—ROMME (*La Presse Med.*, October 29, 1898) describes some remarkable cures of obesity according to the method employed by Schweninger at Baden Baden. Twenty pounds lost in five weeks, fifty pounds in eight weeks, and one hundred pounds lost in nine months, is given by an observer of this method of treatment. The effect upon the heart was most beneficial. Those patients who were afflicted with weak and irregular hearts on account of the excess of fat, and who had taken digitalis for long periods on this account, were able to take long walks without fatigue, the pulse became regular and strong. The relief of sleeplessness was another benefit derived from the treatment. The treatment is based on the simplest therapeutic resources, viz., abdominal massage, warm baths, and a suitable diet, but they are administered in a truly remarkable way. The massage is given three times a day, before each meal, with the patient lying in a relaxed condition with the knees flexed. It lasts for twenty minutes and is divided into three portions. The first part is taken up with prodding the epigastric region with two fingers while the patient draws long breaths. The force used by the operator is at first slight, but is gradually increased until as much power is applied as he has. It is painful for the patient, who is able to draw only four or five breaths. Later, however, he becomes accustomed to the exercise, and can draw twenty. The second part of the séance is the pinching. The operator takes up masses of the abdominal fat and crushes them between his fingers. This part is extremely painful and amid the cries of the patient is continued until there are numerous ecchymoses all over the abdomen. The operator next buries his knees in the epigastric region of the patient, placing his whole weight upon them, and directing the patient to take long breaths. This is considered by Schweninger the most important part of the treatment. At first a patient can only take a few breaths, but the

number increases day by day until thirty can be taken. The violent exercise of the diaphragm thus produced is said to cause the absorption of the fatty matters which embarrass its movements. As may well be supposed the patient is exhausted by these manipulations and remains upon his couch for some time. One bath is given each day, but never to the whole body. The first day the arms are put into the bath; the next day the legs, and the third day a sitz bath is given. The water has a temperature in the beginning of the bath of 100 degrees, but this is gradually increased to 120 degrees. The bath lasts twenty minutes. It makes the patient very uncomfortable until he becomes accustomed to such high temperature. By it a half-hour more or less of sleep is induced.

The diet is equally remarkable. The food is served up on doll's dishes, and is taken by the patient in his own room every three hours beginning at 7.30 A.M. and ending at 7.30 P.M. Only lean meat, eggs, vegetables, cheese and fruits are allowed. The patient may not drink at meals but after each meal he may take a swallow of a mineral water from a minute glass, amounting in the whole day to a little less than a pint. Articles which are forbidden are bread, cake, butter, and all the fats, sugar, coffee, tea, milk, wine, beer, and liquor. The constipation which is set up by this regimen is relieved by aloes or an injection of glycerin. Sunday is observed as a day of rest, and the patient receives no treatment and may go into the city and live as he pleases. If he indulges in hearty living, however, he finds his weight increased by two or three pounds on Monday morning, so that excesses of that sort are not likely to be repeated. The time required to effect a cure is usually from six to eight weeks.

***One Hundred Cæsarean Sections.***—LEOPOLD AND HAAKE (*Centralbl. für Gynak.*, November 5, 1898) give the results of all the Cæsarean sections which have been performed in the Dresden Woman's Hospital since 1883. There were seven deaths in seventy-one cases, only four of these being attributable to the operation. Porro's operation was performed twenty-nine times, with three deaths, making a mortality for the whole series of 5.2 per cent. The authors emphasize the importance of making a careful examination for gonococci before performing Cæsarean section. In this series of cases four children were lost. Twice rupture of the uterus occurred before operation, but in each instance the mother and child were saved. In one-half of the cases there was no fever during convalescence. Thirteen of the patients developed septic symptoms. Five of the ten deaths were caused by sepsis or suppurative peritonitis.

***Recurrent Dislocation at the Shoulder-joint.***—FRANCKE (*Deut. Zeit. für Chir.*, vol. 48, p. 399) reports upon the pathologic condition of eighteen cases of habitual dislocation of the shoulder, a part of the material being examined at operation, and a part at autopsy. The condition most frequently found was that of hydrops of the joint. Alterations in the bones involved in the joint held the second place. The following list shows the frequency of occurrence of the various lesions: Dilatation of the capsule, 16; communication with the subscapular bursa, 1; rupture of the capsule along the glenoid, 3; rupture of the deltoid, 4; rupture of the deltoid with fracture of the greater tuberosity, 1; defects in the head of the humerus, 12; defects in the glenoid, 9; foreign bodies in the joint, free or attached, 5; foreign bodies complicated with hydrops, 2. The defects on the head of the humerus were often of a typical sort, namely, a groove on the posterior side of the head of the bone, to the inner side of the greater tuberosity. Such a defect has been variously interpreted as due to the breaking off of a fragment of boue, and to wearing from abnormal pressure. That the former sometimes happens, is shown by the occasional presence of the fragment of bone, but the correct explanation in most cases is undoubtedly that given by Koenig. He said that if a part of the head of a bone was subjected to a contusion, it could be absorbed by subsequent inflammatory processes. Hence the name, "osteochondritis dissecans," which he applied to it.

In fifteen of the cases reported operation was performed as follows: Nine times resection of the head of the humerus; five times opening of the capsule which was subsequently sutured or drained; and once infolding of the capsule without opening it. Resection of the head of the bone prevented future dislocation, but often affected the mobility of the joint and is therefore to be avoided. A better treatment consists in exposing the capsule, and then taking a tuck in it, or opening it and resecting a portion of it, or removing from the joint any foreign body together with suture of any muscle which has been torn from its attachment. The joint should be kept quiet for at least two weeks, with drainage or tamponade in order to secure the utmost possible retraction of the soft parts.

## THERAPEUTIC NOTES.

***For Pain Following Extraction of Teeth.***—This pain, which is often severe and more or less persistent and rebellious to treatment may be soothed by the introduction into the alveolar cavity of a bit of absorbent cotton saturated with one of the following solutions:

| | | | |
|---|---|---|---|
| 1. ℞ | Chloroformi<br>Spiritus<br>Tinct. aconiti | aa . . . | *m.* lxxv |
| | Morphinæ . . . . . | | gr. i. |
| M. Sig. External use. | | | |
| 2. ℞ | Spiritus . . . . . | | ʒ ii |
| | Chloroformi . . . . . | | ʒ iv |
| | Etheris . . . . . | | *m.* lxxx |
| | Camphoræ . . . . . | | ʒ i |
| | Tinct. opii . . . . . | | *m.* xxx |
| | Ol. caryophylli . . . . . | | *m.* viii. |
| M. External use. | | | |

Hot applications to the cheek may also afford relief, or painting the gum around the painful points with the following:

| | | |
|---|---|---|
| ℞ | Menthol . . . . . | gr. vi |
| | Tinct. aconiti . . . . . | gtt. xx |
| | Chloroformi . . . . . | *m.* c. |
| M. Sig. External use. | | |

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## OF MEDICAL SCIENCE.

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SATURDAY, DECEMBER 31, 1898.


### THE PRESIDENT OF THE BOARD OF HEALTH AND THEORIES OF DISEASE.

PRESIDENT MURPHY of the New York Board of Health said in a "public statement" on "so-called grip, or whatever it might be called, either influenza or anything else."

I should like to have the opinion of these scientific gentlemen who now talk so freely of grip and other diseases whether they have ever thought of the effect of the asphalt pavement that so poultices our streets, what those effects are? A heat oozes from the asphalt pavement in summer and it becomes soft. Have the physicians of New York ever investigated that, and if it becomes soft and odor arises from it then, what are the effects of it in winter?

We would humbly submit that it is a condition, not a theory, that the President of the New York Board of Health has to face. The cases of epidemic disease that are at present so rife in New York City may not all be grip. We expressed our views editorially on that matter last week. The daily papers were certainly over-hasty, from a medical standpoint, in their announcement of the prevalence of grip epidemically and their scare headlines were of a nature to do New York serious commercial injury. We are, however, without doubt, in the presence of an epidemic or series of epidemics of contagious or infectious disease, call it what one will. This is partly due, we are sure, to unfavorable meteorological conditions which have obtained unseasonably. The absence of the accustomed amount of sunlight and the presence of superabundant moisture has given an impulse to bacterial growth, not only in numbers, but in virulence. This increase in number and virulence of pathogenic bacteria, however, is not all due to the weather alone. The condition of our streets is undoubtedly an important factor in the matter. There are streets from which the snow which fell nearly a month ago is scarcely yet entirely removed. We would suggest that the President of the Board of Health of New York City could, under these circumstances, put in his time better than in suggesting, in questionable English, subjects for doctors to theorize about. He might turn some of his intellectual acumen and ability to ask questions to questioning the Street-cleaning Department of this city as to why our streets are as they are. He might turn some of the forces of the Health Department over to the Street-cleaning Department to help clean the streets. It would be very properly within his province of caring for the health of New York City, for the Street-cleaning Department seems unable to do its duty in protecting the city's health. Or he might begin proceedings against the Street-cleaning Department for maintaining a nuisance or any one of one hundred and one other things. Only let him do something, not talk.

### STUDY MEDICINE AT HOME, $2 A MONTH.

EVERY man is said to be either a fool or a physician at forty. There will evidently be no reason hereafter for him to wait until that advanced age, since for the moderate sum of $2 a month he may become both, long before that time. Two dollars a month is not much to pay for the acquisition of so much knowledge. Crocheting and farming and poultry-raising and fancy work and languages and literature and engineering are all being taught by mail *at home*, so why not medicine? After the student considers that he knows enough, and it does not take long to acquire that felicitous condition when one is learning by mail and at home, and has acquired experience by practising, we suppose, on the members of the family circle why then he may purchase a diploma. There are States where it will not be difficult for him to legitimately begin practice, and

others where he will acquire a practice all the sooner if there is an air of irregularity about him.

It is a matter for sincerest congratulation, however, that an end to this sort of thing does not seem far off. There is an interest being taken in medical organization that will finally lead to the suppression of quackery. Much remains yet to be done and the interest manifested leaves much in general to be desired, but everywhere now there is at least the recognition of abuses; the means for their suppression will surely be found. Let us hope that the signs of the times are not false and that the hour is not distant when every practitioner in the country will feel that he is ready to make some personal sacrifice for the abolition of quackery. When that moment arrives the death-knell of this blatant medico-mimicry so obtrusively demanding attention all around us will have surely sounded.

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### SOCIETY AND EARLY CLOSING.

SOCIETY in two of our large Eastern cities has resolved, it is said, to make an effort to bring balls and social functions generally to a close some hours before dawn. As medical men we cannot but congratulate the "goddess that makes for fashion," on this wise indulgence and remission to her devotees of their exacting duties. How much of nervous exhaustion and early degeneracy in certain classes of people, is due to the evil of turning night into day only the medical profession really knows. In a not distant city the evil is said to have reached such a pitch that when, by some chance, the special bit of femininity in which a young man is interested goes home early from a ball, say at 3 A.M., he stands on the curbstone, after having comfortably stowed his divinity and her chaperon in their carriage, and, unwilling to go back "where she is not and but now was," wonders within himself whatever shall he do with the evening that has been thus ruthlessly broken in upon.

Nature is a good usurer. She lends of the vital treasure stowed away almost whatever we ask, but she collects the debt mercilessly and charges a high rate of interest. Abuses like this in the matter of sleep are drafts on life due ten or perhaps twenty years after date, but then without grace. Metaphor aside the evil is a serious one. Many a failure in business, many a breakdown in young lives, is due to the unreasonable demands of senseless fashion.

We plead for shorter hours for the overworked devotees of fashion with as earnest a humanitarian purpose and as serious a feeling of sincere pity as we do for the workman and workwoman called upon to spend too long hours at their daily toil.

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### HIPPOCRATES AND CURATIVE INJECTIONS OF GAS (AIR) INTO THE PLEURAL CAVITY.

IN reference to priority in the use of intrapleural injections of gas of some form, as discussed in our issue of November 12th, a correspondent, Dr. J. F. E. Colgan of Philadelphia, calls our attention to the following condensed quotation from Hippocrates, as it occurs on page 263 of the "Epitome of Hippocrates and Galen," Coxe, Philadelphia, 1846, under No. LVIII.: "The lungs falling on the pleura (?). It arises sometimes from a wound or from the operation for empyema; singular treatment for, by introducing air into the cavity."

The quotation is an epitome, and not a very lucid one of chapter xxiii of the second book "On Diseases," which may be found in its entirety in Volume III. of Haller's (Lausanne, 1784) edition of Hippocrates' works. Under treatment of *pulmo in latus decumbens*, retraction of the lung (we suppose), occurs the passage: (If the lung should retract) after a wound or after section for empyema (*purulento secto*), then a bladder being fastened to a tube should be filled with air and introduced, being closed by a solid pencil of tin fastened to it and allowed to protude. Just what the idea of this method of treatment was he does not say. With its results he seems to have been perfectly satisfied, for he adds: "This method of treatment will give the results you desire."

It would be most interesting could we have some data of Hippocrates' cases treated by this method, for the treatment of traumatic pneumothorax or empyema in our day is not so perfect but that we would be ready, if they promised good results, to receive suggestions even from Hippocrates. As to the question of priority of idea in intrapleural injections, the probability is that under the circumstances a court of patents would be apt to decide that the ancient scientist has not so completely com-

passed the principle, in the matter of setting the lungs at rest for therapeutic purposes, as to render the idea legally unpatentable by an enterprising modern who had rediscovered it. This is said in simple justice to the modern inventor. It is to be hoped, however, that our German confrères will not seize upon the suggestion and forthwith proceed to secure American patents.

In this connection the fact must not be lost sight of that the merit of discovering a new and useful application of principles previously enunciated but unapplied and forgotten is quite as great as that of him who first conceived it.

### MASSAGE BY TRAINED NURSES.

IT is quite probable that the trained nurse, during the time spent in hospital service, finds her hands very full, and would rebel against the extension of her curriculum by so much as a jot. She is hard-worked all day and is little inclined, according to our experience, to sit through didactic lectures or theoretic talks during the evening. But those who have the most vital interest of the correct training of nurses at heart and who employ them in their post-graduate work have a right to expect efficiency in certain directions which is unfortunately lacking in many nurses at the present day. If the trained nurse is really the "handmaid of medicine" she should be able to carry out all the instructions of the physician without a resort to outside aid.

In view of the increasing favor with which massage is regarded as a curative factor in many cases, as a necessary measure in others, it has become essential that the trained nurse shall be able to execute this measure in accord with scientific principles and in harmony with physiologic needs. The hours endured by the young women in our hospitals acquiring the merest smattering of anatomic terms, physiologic complexities, and the doses of unused drugs might well be spent in the practice of massage under the instruction of a competent teacher. It would by no means be regarded as a superfluous accomplishment for the trained nurse properly to carry out massage treatment, but would further the usefulness of this eminently useful young woman. Again and again it happens that a family is able to stint itself sufficiently for the employment of a competent nurse, but does not command resources great enough for the additional service of a *masseuse* when this proves necessary. Economy and convenience in general demand that the trained nurse shall be able to perform this function; nothing that she may be able to do to further the recovery of a patient and to assist the physician in this purpose is superfluous. Among the important elements tending toward these ends is massage.

### DOCTORS' PROTESTS NOT ALL IN VAIN.

SOME three months ago one of our foreign correspondents called special attention to the fact that the Congress of Slavish Naturalists and Physicians would not be held at Posen this year as announced, because of the prohibition, by the Prussian police department, of the attendance of foreigners. As this police regulation would exclude the Russians, the Poles and the Czechs, who form the great majority of the usual attendants at the Congress, the meeting was postponed until 1900, when it will convene at Cracow in Austrian Poland. As our correspondent noted, the decree of the police excluding Austrian subjects from attending a scientific congress in the supposedly fraternal territory of a member of the Triple Alliance had been the occasion for vigorous protests and representations to the Austrian Government on the part of the Czechish and Gallician physicians who had expected to attend the Congress.

The result of these protests has become apparent in some recent head-lines in the daily press, "The Triple Alliance in Peril," "Austria Threatens to Withdraw from the Triple Alliance," and the like. The ostensible motive for the formal declaration of the Austrian Prime Minister before the Imperial Parliament "which fell like a thunderbolt on the Germans," is the fact that Prussia has been expelling numbers of Austrian subjects from her dominions because they are Slavs. This expulsion of Austrian Slavs has been going on for years, and it is noteworthy that the vigorous Austrian protest in the matter should come only three months after the Prussian insult to the Slavish scientists and medical men. The handwriting on the wall is not hard to read for one who knows something of political conditions among the Slavs and who realizes that the great apostles of the new Pan-Slav movement among the Czechs, the Poles, and the Russians have been the members of the medical profession. The au-

thority and respect which their position among the people gives them has been used on every possible occasion for a zealous propaganda of the new Slavism and the dissemination of ideas that would lead their fellow-countrymen to claim the racial prerogatives to which their numbers entitle them. The Prussian Government tackled a hornet's nest when it saw fit to impugn the motives of the Slav scientists and physicians who were to meet at Posen, and assumed that their object was a political one. Our foreign correspondent said at that time that the final result of that interference was not yet in sight. The present conjuncture justifies that prophecy. Meantime there is a lesson for the physicians of all nations in the present situation. It seems to read "In union there is strength."

### *ADVERTISEMENT OF ABORTIFACIENT REMEDIES.*

THE trial of the parties who, after selling abortifacient remedies in London, endeavored to blackmail their customers, the threat of legal prosecution "for the awful crime of attempting to bring about abortion or prevent birth being hung over them unless they forwarded ten dollars," has brought with it some very interesting developments. The judge who is trying the case announced during the progress of the trial that newspapers publishing advertisements of remedies that were, or were evidently meant to be considered, abortifacient in their action were amenable to legal prosecution as "accessories before the fact." This is a decision of the widest significance and has had an immediate practical application in England. Our London correspondent in his letter published December 24th, announces that the London police department have issued a public notice, that in future all newspapers inserting such advertisements, after one warning, will render themselves liable to prosecution for inciting to crime.

It is utterly disingenuous to argue that such advertisements are printed by newspapers in perfect good faith and with the sincere belief that they are only calling public attention to certain very proper emmenagogues. If proof to the contrary however were required it would be found abundantly in the fact that, in England at least, such advertisements are accepted at, not two or three, but sometimes four or five times regular space-rates for ordinary legitimate advertising. Doubtless the same state of affairs would be found to obtain in this country if the advertizing managers of some of our abortifacient publishing journals were consulted. It is, of course, well understood, at least by medical men, that none of the much-lauded abortifacients ever produce the result looked for, despite the testimonials to that effect, sometimes published. That, however, only adds the crime of selling under false pretences to that of inciting to crime.

The English have in this matter evidently hit upon the solution of a most difficult and disgracefully manipulated question. We call attention to the methods they employ and the legal principles upon which their proceedings are founded in the hope that our medical societies in this country may be encouraged to do something for the remedy of a glaring evil that disgraces our American journalism. May we be able to chronicle before the end of the year that is just upon us, some steps in this matter looking to the correction of the abuse.

## ECHOES AND NEWS.

***Six Convicts Made Insane.***—Six convicts, driven mad by idleness, were recently taken from the Kings County Penitentiary to asylums for the criminal insane. One of the penitentiary officials said that until the abolition of convict labor there had not been a case of insanity in that institution for years.

***The New York State Medical Society.***—The cheering news comes from the Business Committee of the New York State Medical Society that the program for the next meeting is already overflowing with contributions, and that no more applications for positions on the program can be entertained.

***Christian Scientists Convictions.***—For the second time within two weeks, a Cincinnati, Ohio, jury has convicted, and a Cincinnati judge has fined, a practitioner of "Christian Science," who had been arrested on the charge of violating the State law which forbids any but duly licensed doctors to treat the sick for hire.

***Many Kiss the Relic of St. Anthony.***—At the Catholic church in East 113th street, between Second and Third avenues, New York, the sacred relic of St. Anthony of Padua (a portion of the thigh bone) has been exposed and is being kissed by hundreds of people. Among these people are many deaf, dumb, blind, and lame who hope for relief.

***Clinics at the Skin and Cancer Hospital, New York.***—Dr. L. Duncan Buckley has inaugurated a series of clinics on diseases of the skin, every Wednesday afternoon, at the New York Skin and Cancer Hospital, beginning at 4.15 P.M. The course is free to the medical profession.

Clinical material is abundant, the facilities for such work are excellent, and the accommodations for spectators and patients most comfortable.

***Bubonic Plague on a British Steamer.***—The report comes from Plymouth, England, that there was a case of bubonic plague on board the British steamer "Golconda," which arrived from Calcutta via Mediterranean ports. The patient was one of the cabin passengers, an officer in the India Company's service, who was coming home on leave. He was attacked by the disease the day after the steamer left Marseilles, and was isolated as soon as the nature of his disease was learned. He was landed in Plymouth.

***The Report of the New York State Commissioners of Lunacy.***—This, the last annual report is a large volume made up of statistics, photographs, tables, and detailed accounts of the work of the State's twelve great hospitals and their 20,000 insane inmates. The evidence furnished seems to show that the present method of caring for the insane is, on the whole, an efficient and creditable one. Besides hospital records, this report contains other matter, notably a description of the Pathological Institute which has just been established for the scientific investigation of the nature and cause of insanity.

***Advertising within the Profession.***—We glean from the *Medical Press and Circular* that a series of illustrated medical biographies have been appearing in the pages of the *Dublin Lady's Pictorial.* The Presidents of the Irish Colleges of Physicians and Surgeons were persuaded to allow their portraits to appear as the first in the series. As our contemporary very justly says, "if dignitaries and titled personages are allowed to advertise themselves in this way so should the working men of the profession, and to that end all restrictions as to advertising embodied in the by-laws of medical societies should be repealed."

***A Quack in Trouble.***—The *Texas Clinic*, in its December number, quotes from the MEDICAL NEWS the letter of correspondence recently published regarding a Dr. Bemis of Glen Falls, N. Y. In commenting upon this the editor of the *Clinic* says: "The editor has heard of Dr. Bemis. The flattering reports of his wonderful cures, by an eminent divine of Louisiana, caused many patients to go to him from that section. Two of these unfortunates were personal friends of the editor. Each was assured of a complete cure and each was relieved of a good sum of money, but neither benefited in the least."

***Dr. Adams Lectures at Bellevue.***—By invitation of the faculty, Dr. S. S. Adams of Washington delivered a lecture last week before the senior class of the University and Bellevue Hospital Medical College, New York, upon the subject of "Fevers in Children; Their Significance and General Diagnostic Value, and Antipyretic Treatment." The lecture was given at the usual hour devoted to Pediatrics. This custom, inaugurated, we believe, by Professor Northrup, of occasionally inviting a prominent specialist to occupy his lecture hour, has many features to commend it. It is a pleasant and instructive experience for the medical class, it is a stimulus to the guest, and productive of a cordial feeling among all concerned.

***A French Medical Hero.***—A decree dated October 1, 1898, confers the cross of the Legion of Honor upon M. le Dr. Bartel, a young naval surgeon in the French service in Upper Dahomey. The brave deed for which the decoration was conferred is thus briefly described in the official record. "During the affairs of the 4th and 8th of November, 1897, while serving with the Borgan column, this officer, despising death, completed his difficult duty beside the wounded under a perfect rain of arrows." We noted last week the conferring of the Victoria Cross upon an English surgeon for a like act of conspicuous bravery. Medical gallantry knows not any narrow national limits, and the call of duty is as powerful to the French as to the British medical man, though both are attending to common soldiers and sailors in a distant foreign country and without thought of the possible distinction to come inspired only by the sense and motive of care for the wounded who looked to them for help.

***The New York Eye and Ear Infirmary.***—Advance sheets of the annual report of this institution show that it is accomplishing much good work, although hampered by lack of pavilions for the use of the ear and throat department and for the reception and care of patients suffering from contagious diseases of the eye. The surgical staff now comprises more than fifty. The resident house staff, clinical assistants and assistant surgeons are selected after a competitive examination. During the year ending September 30, 1898, 24,904 new patients and 42,977 patients were treated in the eye department; 818 patients, 418 of whom paid board, were received in the eye wards, and 2771 surgical operations were performed, including 178 for cataract. The Hoab magnet has proved invaluable for locating and also for removing pieces of steel from the eye. The throat and nose department treated 4947 new patients, an increase of about 500 over the former year; of these 3000 suffered from throat affections; 1136 operations were performed without any fatality.

***An Unfortunate Dental Fatality.***—The London *Medical Press* reports the following sad story from Australia which is probably unique of its kind. A young lady immediately after the extraction of a tooth was taken with violent cough and dyspnea which persisted in spite of all remedies until her death, which occurred two weeks later. At the autopsy a tooth was found in a bronchus; infection of the lung parenchyma had occurred, and gangrene had supervened to bring on the fatal issue. The dentist denied that he had let the tooth slip from the forceps, but the evidence presented showed that he had put the attendants out of the room and inverted the patient. This he declares he did because the root of the tooth was badly affected, pus had collected there and he feared that she had aspirated septic pus into her trachea and bronchi. It seems plain that he knew that the tooth had passed into the air-passages, since if it had merely been swallowed he would scarcely have resorted to the extreme measure he employed. For the concealment of the fact,

he is criminally responsible, since candor in the matter might have led to operation and so possibly prevented a fatal issue.

***Smallpox in the United States.***—It is evident from the recent report of the Marine Hospital Service that the widespread invasion of smallpox is being rapidly suppressed.

## OBITUARY.

### *DR. JOHN B. HAMILTON.*

DR. JOHN B. HAMILTON, former Surgeon-General of the United States Marine Hospital Service, and editor of the *Journal of the American Medical Association*, died at Elgin, Ill., December 24, 1898. For more than a year he had been superintendent of the State Asylum for the Insane, at Elgin, and it was within the walls of that institution that he breathed his last. While on a visit to the East two weeks ago Dr. Hamilton was attacked by a severe cold upon which a sharp attack of peritonitis supervened.

He grew worse rapidly, and on December 18th it was decided by Dr. Nicholas Senn that an operation was necessary to save the patient's life. The operation was performed, but such conditions were found as to render all chance of recovery doubtful. He rallied slightly after the operation, and for a few days there seemed to be a probability that he would pull through. During the last two days he had, however, been sinking slowly, and death came at 6:30 o'clock Christmas eve.

Dr. John B. Hamilton was born in 1847, in Jersey County, Ill., and was graduated from Rush Medical College, Chicago, in 1869. In 1874 he was appointed Assistant Surgeon in the United States Army, but resigned in 1876 to enter the Marine Hospital Service. Three years later he became Supervising Surgeon-General of that service, succeeding General John M. Woodworth. Dr. Hamilton infused new life into this department of the Government and instituted important reforms. He caused the first visual examinations of pilots to be made, and the first physical examinations of seamen preliminary to shipment. During his incumbency of office he succeeded in having the National Quarantine acts passed.

In June, 1891, when the House of Representatives failed to pass the Senate bill providing for the equalization of the salary of his office with that of the Surgeon-General of the Army and the Surgeon-General of the Navy, Dr. Hamilton resigned his commission as Surgeon-General and returned to the ranks. He was stationed at Chicago for three years in charge of the Marine Hospital service, but in 1896, rather than be transferred to San Francisco, he resigned from the service altogether. He was professor of surgery at the Rush Medical College and the Chicago Polyclinic, surgeon to the Presbyterian Hospital and consulting surgeon to the St. Joseph's Hospital and the Central Free Dispensary. Dr. Hamilton's reputation will rest especially upon the work he did while at the head of the Marine Hospital Service and his editorial labors in connection with the *Journal of the American Medical Association*.

## CORRESPONDENCE.

### *LYCOPODIUM POLLEN IN URINE.*

*To the Editor of the* MEDICAL NEWS.

DEAR SIR:—To one who has not himself had the experience, the account given by Dr. George Dock in your issue of December 17th, of the difficulties encountered in recognizing lycopodium pollen in the urine will seem somewhat far-fetched, but having had a somewhat similar experience I can join with him in expressing surprise that a substance which is in such general use and which has such a striking appearance under the microscope should be so unfamiliar even to expert microscopists.

The fact that not one of the various text-books on urinary analysis even mentions the occurrence of lycopodium pollen in the urine led me to publish a note on this subject in *Pediatrics*, page 107, February 1, 1896.

M. MANGES, M.D.

941 MADISON AVENUE,
NEW YORK, December 23, 1898.

### *THE TREATMENT OF GRIP.*

*To the Editor of the* MEDICAL NEWS.

DEAR SIR:—Inasmuch as the pathology of grip is still somewhat obscure and its etiology practically unknown, the treatment is naturally directed toward the relief of symptoms. While these differ widely in different patients there are nevertheless a few constant phases of the malady that have been seen in all of my cases.

In the cases that I have seen I found high temperature, full, rapid pulse, pain in the back, orbital pain, headache, muscular soreness, restlessness and insomnia, and usually constipation. So common was the last symptom that I am led to believe it a causative factor, or at least a condition necessary to the disease. The premonitory coryza of former epidemics did not appear in my cases until the other symptoms had subsided. The urine was scanty, highly colored, and of high specific gravity, but repeated examinations in twelve cases showed the presence of albumin in only one.

In lieu of more scientific treatment it seems to me that elimination by all the avenues of excretion is the rational way to attack the disease. As it is usually of short duration we need not fear prostrating measures. I order the patient sponged with alcohol, a mustard plaster placed over the seat of pain in the back, and prescribe the following:

℞ Pulv. ipecac. et opii . . . . gr. x
Hydrarg. chlor. mitis . . . . gr. iii
Sodii bicarb. . . . . gr. ii.
M. Sig. Take at bed hour.

Next morning I give a tablespoonful of effervescent sodium phosphate in a glass of water and advise the patient to drink water freely throughout the day. Every two hours he is given phenacetin gr. v until five such powders have been taken. His diet is oatmeal, milk, and toast. After the acute symptoms have disappeared and there is left only a feeling of weakness, anorexia, and lack of ambition I prescribe a preparation of the alkaloids

of cod-liver oil with the malt and hypophosphites. This being slightly bitter stimulates the appetite and within a week puts the patient in normal condition.

JOSEPH ALAN O'NEILL, M.D.
118 WEST EIGHTY-FOURTH STREET,
NEW YORK, December 24, 1898.

## OUR PHILADELPHIA LETTER.

[From Our Special Correspondent]

REORGANIZATION OF THE POLYCLINIC — HOMEOPATHIC STATE HOSPITAL FOR THE INSANE — THE HEBREW CHARITY BALL—PERSONAL NOTES—STATE MEDICAL EXAMINING BOARD—DIPHTHERIA CLOSES A SCHOOL—BOARD OF HEALTH NOTES — INFLUENZA—HEALTH STATISTICS.

PHILADELPHIA, December 27, 1898.

RUMORS have been rife as to changes in the management of the Polyclinic and of differences of opinion which were said to threaten the equanimity of its faculty. Consequently the announcement that the Board of Trustees which formerly contained medical men will, after January 9th, consist only of laymen, is no surprise. Dr. John B. Roberts, President of the Board, resigned this position about a month ago and Drs. Henry Leffman, Thomas S. K. Morton, W. J. Freeman, and Samuel D. Risley, members of the board, will also resign. It is stated that all concerned feel that more attention can be given to instruction, and the business matters of the institution can be more readily handled under this new régime, a step which has apparently been necessary for some time.

The Homeopathic Medical Society of Germantown, at a meeting held last week, received from Dr. Isaac W. Heysinger the report of the Committee on Organization for a State Homeopathic Hospital for the Insane. Each homeopathic society in the State is to send delegates, together with a committee from the State Homeopathic Society, to secure passage, by the next Legislature, of a bill providing for such an institution. A similar bill was passed by the last Legislature which the Governor did not sign. When it is remembered that there are now five State institutions for the insane for which it has been impossible to secure from the Legislature sufficient money to prevent overcrowding, and that there is likely to be some general opposition, it seems extremely doubtful that the bill will be passed.

The Hebrew Charity Ball will be held February 7th and the money raised, of which there is always a large amount, will be divided between various charities, among them being the Jewish Maternity Association, the Jewish Hospital Association, and the Jewish Foster Home and Orphan Asylum.

Dr. Stewart Reeser, a graduate of the Medico-Chirurgical College and formerly Resident Physician of the Friend's Asylum at Frankford, died at his home in Scranton on Friday, December 15th.

Dr. John Marshall, Professor of Chemistry, Dr. George A. Piersol, Professor of Anatomy, and Dr. Edward T. Reichert, Professor of Physiology, all of the University of Pennsylvania, have gone to New York to attend the Association of American Anatomists and the Chemical and Physiological Societies.

At the last meeting of the College of Pharmacy, William B. Thompson read a paper, entitled "Some Observations on Acetracts in Comparison with Fluid Extracts." While further clinical experiments are needed to determine their value many favorable points seem to make the employment of the acetracts a mere matter of time. Lyman F. Kebler presented a paper on the "Physical and Chemical Properties of Lithium Benzoate and Lithium Salicylate," being a continuation of his work on this subject for the Committee on Revision of the Pharmacopœia.

The State Medical Examinating Board held a meeting last week at the Lafayette Hotel to make its final decisions on the examinations of applicants for licenses to practise medicine in Pennsylvania. One hundred and three graduates took the examination, which was held early in December, and of this number three were expelled for cheating, twenty-nine failed, and seventy-one were passed by the board.

In a report submitted last Friday by Medical Inspector T. Howard Taylor to the Board of Health, it was recommended that St. Stephen's Parochial School be closed on account of an alarming prevalence of diphtheria in the school. Six deaths and a large number of cases have occurred in this school, and the board ordered it closed for twenty days for thorough disinfection and fumigation. The question of admitting medical students of advanced grades to the Municipal Hospital for the purpose of studying contagious diseases was again brought before the board, and on motion it was decided not to admit them.

Dr. Woodward, owner of the church property which is being used by the Board of Health for a case of typhus fever, has presented the church as a gift to the city. When Director Riter sanctioned its use as a means of preventing the spread of typhus among Municipal Hospital patients much criticism was indulged in, many calling it a ruse to make the city pay an exorbitant price for worthless property, and others saying that it was done to put a stop to the movement on foot to change the location of the Municipal Hospital. By Dr. Woodward's gift this movement will, incidently, be killed, and the city at an expense of $600 for fitting up beds, etc., will secure room for about thirty additional patients.

Philadelphia's death-rate has markedly increased during the past week, in which there were 169 more deaths than in the week before and 254 over the corresponding week of 1897. There were 29 deaths resulting from grip and 129 ascribed to "inflammation of the lung," many of which were no doubt due primarily to influenza. Dr. John B. Deaver is quoted as saying that he firmly believes influenza is the most frequent cause of appendicitis, producing as it does a catarrhal inflammation of the gastro-intestinal tract which leads to appendicitis. He says further that during the present epidemic he has performed two operations which he does not hesitate in stating most positively had their origin in attacks of influenza, and believes there will be an appreciable increase in the number of appendicitis cases. Many physicians incline strongly to this belief, and the present epidemic should

give us opportunities of proving or disproving this theory. The epidemic thus far seems to have been increasing by enormous strides and while the first cases were marked by their short duration and mildness, this is no longer the case.

The total number of deaths occurring in Philadelphia during the week ending December 24th, as reported at the Health Office, was 650, of which 164 occurred in children under five years of age. The total number of new cases of contagious diseases was 234, reported as follows: diphtheria, 80 cases, with 18 deaths; scarlet fever, 33 cases, with 2 deaths; typhoid fever, 130 cases, with 24 deaths.

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## MEDICAL MATTERS IN CHICAGO.

[From Our Special Correspondent.]

BLOOD OF TUBERCULAR PATIENTS—AMEBIC DYSENTERY IN CHICAGO—ADENOID GROWTHS IN THE PHARYNX—DONATION BY MRS. AVERELL—ANNUAL REPORT OF ST. LUKE'S HOSPITAL—PUBLIC HEALTH AT THE CHICAGO WOMAN'S CLUB—ANTITOXIN TREATMENT OF DIPHTHERIA—FORMALDEHYD DISINFECTION—INERT VACCINE LYMPH—SOCIETY FOR THE PREVENTION OF TUBERCULOSIS.

CHICAGO, December 27, 1898.

AT the meeting of the Chicago Academy of Medicine. held December 9th, Dr. George W. Johnson presented a contribution to the study of the blood of tubercular patients. He reported observations on the blood of fifty tubercular patients in the advanced stage of the disease, the diagnosis having been established by microscopic examination of the sputum. Especial attention was given to cavity formation with the idea of determining the presence or absence of leucocytosis in such conditions. The technic employed was essentially that detailed in Cabot's work on the blood. Pus micro-organisms were found with great abundance in each one of the fifty cases. Chlorosis was met with in eight cases, five of them being males. In cases of chlorosis there is lymphocytosis; in secondary anemia the adult lymphocytes are the more numerous. Well-defined necrobiotic changes were noted in thirty-six of the fifty cases. Of these thirty-six cases, twenty-eight had secondary anemia. The hemoglobin was far below normal in each of the cases; forty-five of the fifty cases had pathological leucocytosis; cavities were demonstrated in twenty-eight cases; twenty-six of these showed great increase in the number of white cells; nineteen in the remaining twenty-two also had leucocytosis, although no cavities were demonstrated. He believes leucocytosis is diagnostic of cavity formation if the vital resistance of the patient is maintained.

At a meeting of the Chicago Medical Society, December 14th, Dr. R. B. Preble reported two cases of amebic dysentery, which he said is not so very uncommon in Chicago, but the great majority of the cases are imported, so that these two cases are of interest because they were acquired in this city. He finds, by inquiry that a few practitioners have observed cases acquired here, but none of them have been placed on record. The first case was in an American, thirty years of age, a resident of Chicago for nine years. For the past fourteen months he has had diarrhea with blood and mucus in the stools, moderate tenesmus and abdominal pain. Ameba coli were found in large numbers. Improvement, but not recovery, has been observed under colonic flushings of quinin and of silver nitrate. The second patient, Mrs. C., is fifty years of age, Irish, and has been a resident of Chicago for thirty years. She had diarrhea with blood, mucus, and pus, during the summers of 1897 and 1898, with ameba in the stools.

The widow of a Chicago pioneer, Captain Albert J. Averell, has donated to the Presbyterian Hospital of this city, $50,000. The gift provides in perpetuity for ten free beds for men in the hospital in memory of her husband. Mrs. Averell's gift opens the second free ward of the hospital. The other free ward is the William Armour memorial ward, also of ten beds, endowed by Mrs. Bertha Cobb Armour, in memory of her husband. The hospital, however, has many more free beds and several free rooms. Since its organization in 1884, the Presbyterian Hospital has cared for 21,000 patients, and the daily average of its eight wards is 200 patients. The daily average of free patients for the year has been 65.

St. Luke's Hospital has issued its annual report covering sixty-five printed pages and telling what has been accomplished from October 1, 1897, to October 1, 1898. This was the thirty-fifth year of the hospital, and in the twelve months the receipts were $82,439.79, with disbursements of $81,183.89. During the year 1761 patients were treated. The greatest number in the hospital at one time was 141, February 4th. The net maintenance expense, according to the report of the superintendent, was $66,585.69.

Recently the Chicago Woman's Club discussed the matter of "Public Health of a Large City." Professor Edwin O. Jordan, Assistant Professor of Bacteriology in the University of Chicago, spoke of the need of pure water. He said that typhoid fever and Asiatic cholera are the only diseases which can be traced directly to impure water. A good way to test the sanitary condition of a community is to consider the amount of typhoid fever prevalent. Sand filtration, in his opinion, is the only effective means by which the water-supply of a large city can be purified. The efficiency of this method in freeing the water from typhoid bacteria is demonstrated by the experience of Hamburg, Germany, and Lawrence, Mass. In the latter city the death-rate from typhoid fever ranged from 105 to 134 during the six years preceding the construction of the filters. The year after the filter was put into operation the typhoid-fever rate fell to 47, and in 1897 it had been reduced to 16. Figures show that the considerable expense involved in the construction of sand filters is more than counterbalanced by the saving to the community in valuable lives, as well as in obviating the expenditure otherwise necessary in the care of the sick, etc.

In speaking of disposing of sewage he said that the problem of sewage disposal is twofold and includes, first, the keeping of the sewage out of water-supplies, and second, the prevention of a nuisance. The economic

value of sewage has perhaps been overestimated. Modern science has revealed other methods of replenishing the store of nitrogen in the soil.

Miss Marion Talbot discussed sanitary plumbing, and Dr. Sarah Hackett Stevenson spoke of public baths. Dr. Arthur R. Reynolds, our City Health Commissioner, closed the meeting with an address on the work of the Health Department, dwelling mainly upon the mortality of the city, giving comparisons for many years back. He made a feature of his address the decrease in the mortality of infants since the milk-inspection ordinance was adopted.

The Department of Health calls attention to the results of the antitoxin treatment of diphtheria. During November, 163 reported cases of diphtheria were investigated; of these 98 were bacterially verified as true diphtheria, and were treated with antitoxin. With 4 cases remaining under treatment from the previous month, a total of 102 cases were treated, with 97 recoveries, 3 deaths, and 2 remaining under treatment at the close of the month. This gives a mortality of three per cent. for the completed histories. The gravity of the cases is shown by the large number (10) requiring intubation. Of the deaths, 2 occurred among the intubations, and all 3 fatal cases were first seen later than the fourth day of the disease.

Of formaldehyd disinfection, an unusually low temperature during November afforded opportunity for demonstrating the sufficiency of the margin of safety, both as to volume of gas evolved and period of exposure in the department method of disinfection by formalin-sprinkled sheets. Special tests were made during the coldest periods—week ending 19th, mean temperature 39°, lowest 30°, and week ending 26th, mean temperature 29°, lowest 2°—in unheated rooms where the temperature was below the freezing-point. It was found that evaporation was so far retarded that the sheets were not entirely dry at the end of five-hours' exposure; but streak agar inoculations of diphtheria, typhoid, and coli-communis bacilli in inclined tubes were sterilized to the depth of one and one-half inches in this period of exposure. Beneath this point there was growth in all cases after seventy-two hours.

During the year 1897, the Department of Health distributed 126,800 tubes of glycerinated vaccine lymph to its public vaccinators, and obtained 82,804 successful vaccinations and revaccinations—an average of a little more than 1½ (1.53) tubes for each successful result. From January to May, inclusive, and in October and November, 63,600 successful results were obtained from 72,940 tubes distributed, an average of 1.14 tubes for each success, or 87.7 per cent. During the first eleven months of the present year, 75,610 tubes have been used with only 25,864 successful results, an average of nearly 3 (2.92) tubes to each success, or 34.2 per cent. During the last four months the figures have been even more unsatisfactory—45,090 tubes and only 12,124 successes, an average of 3.71 tubes each, or less than 27 per cent. Without further detail, it is evident from these gross figures that the producers of glycerinated vaccine have yet much to learn before they can be relied on to furnish a uniformly potent as well as pure lymph.

At a meeting of the Chicago Medical Society, December 21st, Dr. Arthur R. Reynolds addressed the Society on the organization of an association for the prevention of consumption and other forms of tuberculosis, the membership to consist of ordinary and of life members. Methods—the education of public opinion and the stimulation of individual initiative by means of a central bureau for the collection and distribution of information as to modes of diffusion of tuberculosis and measures of prevention; the circulation of pamphlets and leaflets setting forth in plain language the results of scientific investigation of the above points; public lectures by men approved by the Society; addresses at congresses and other public gatherings; cooperation with other societies having for their object the promotion of public health; the cooperation of the public press; the holding of periodical congresses and the issuance of an annual report; the promotion of the establishment on a self-supporting basis of open-air sanatoria for tuberculous patients; the influencing of legislatures, county and city councils, and other public authorities on matters relating to the prevention of tuberculosis. At a future meeting the president of the Society will appoint a committee for the purpose of investigating and carrying out the suggestions of Dr. Reynolds. It is well known that similar societies have been formed in Great Britain and in some of the larger cities of this country, particularly in Philadelphia.

## TRANSACTIONS OF FOREIGN SOCIETIES.

### German.

THE PROTOZOA OF CANCER—SYPHILITIC LESIONS OF THE PERITONEUM — CATHETERIZATION OF THE URETERS AS A THERAPEUTIC RESOURCE — A CASE OF PAROXYSMAL HEMOGLOBINURIA — TRAUMATIC DILATATION OF THE HEART—OPERATIONS WITHIN THE PLEURAL CAVITY — LORENZ'S OPINION OF CALOT'S OPERATION.

AT the Berlin Medical Society, November 2d, JURGENS read a paper on "Protozoa of Carcinoma." He said that the previous investigations of this subject had usually failed to give practical results because they did not show the very beginning of the invasion of the cells. He had the good fortune to avoid this failure in an autopsy made upon a man aged thirty-four years, whose larger bronchi were compressed with carcinoma so that the secretions of the mucous membrane were prevented from escaping. In these occluded bronchi he found the pathogenic micro-organisms of carcinoma in all stages of growth. First, there were large spindle-shaped bodies filled with minute spores. The latter were free, had ameboid movements, and penetrated in part into the epithelial cells while in part they remained between the cells. Those spores which penetrated into the cells grew until they distended the cells. Secondly, there were granular cells with distinct cell-membranes of crescent- or sickle-shape. Third, there were cells, much increased in size, whose contents were markedly granular and whose nuclei contained nucleoli. Fourth, there were double

cells produced by conjugation in which there were two nuclei and a mild degree of granulation. Jurgens considered that the micro-organisms belonged to the gregarines.

At the session of November 9th, PICK showed a preparation from an autopsy which he had made upon a woman aged fifty-six who died from syphilis of the liver and kidneys with ascites and edema. There was amyloid degeneration of the spleen and kidneys, and what is more remarkable, of the genital organs. Moreover the peritoneum exhibited little tubercles with depressed fatty-degenerated centers. Similar syphilitic tubercles were found upon the heart. This is a condition of the greatest rarity, and it is worth noticing that the patient had been treated with mercury, and the tertiary lesions could not, therefore, have been due to its use, a claim which has been advanced by some writers.

CASPER spoke of the "Therapeutic Results Which Follow Catheterization of the Ureters." He mentioned three cases. A man aged forty was sick for four weeks with marked pain and scanty urine. The bladder was empty. When Casper saw the patient no water had been passed for thirty hours. The pulse was good, there was no fever, and no vomiting. There was no tenderness in the right loin. The rectal examination was negative. A catheter was passed into the right ureter a distance of about 5 cm. (2 inches). An obstruction, due perhaps to a stone, prevented its further passage. Fifty grams (1.5 ounces) of warm oil was injected into the ureter. Twenty minutes later the patient passed urine voluntarily, and from that time on micturition was normal. One week afterward, by means of the cystoscope, a small stone (oxalate) was found in the bladder and was crushed. The second patient was a woman aged twenty-eight who suffered after her confinement from pain in the right side. The urine was purulent, and there was a tumor in the right lumbar region. The pelvis of the right kidney was washed out by means of a solution of silver nitrate, 1–1000, and the urine was much improved. The third patient was a man aged thirty-four years who suffered from pains in the right side of the abdomen with chills and fever. There was a large movable tumor in the right lumbar region and catheterization of the right ureter produced purulent urine. The renal pelvis was washed out as in the previous case but the symptoms were not improved, therefore, Casper left the ureteral catheter in position for seventy-two hours, during which time a great amount of almost pure pus was evacuated. After this the condition of the patient gradually improved and at the time of the report the urine was entirely clear. Casper advocated catheterization of the ureter in pyelonephritis as being more satisfactory than nephrotomy, and scorned the idea that reflex anuria is set up by this treatment.

In the discussion of this paper ISRAEL said that nephrotomy was capable of saving a patient who was already profoundly uremic. Catheterization of the ureters could scarcely be expected to succeed under such circumstances. He stoutly maintained the possibility of a reflex anuria and cited the instance of a woman in whom it had several times been produced in periods varying from two to six days, owing to the presence of stone in one ureter. As soon as the stone was loosened or removed the urine began to flow from the opposite ureter as was demonstrated by the cystoscope.

At the session of November 23d, FRANK described "A Case of Paroxysmal Hemoglobinuria." The patient was a woman aged twenty-six years who passed for several years urine containing more or less blood. There was no pain nor any other symptom excepting anemia. All the organs were apparently normal. Both kidneys were palpable, but were not enlarged. With a cystoscope it was easy to make out that bloody urine came from time to time from both ureters. The mixed product was about the color of port wine. Microscopically, one or two red blood-cells were found in ten or twelve fields of the microscope as well as a few epithelial cells and leucocytes and an occasional small cast. The suspicion of hemoglobinuria was verified by the spectroscopic examination. The origin of the trouble was made out with difficulty. Syphilis and malaria were out of the question, and there was no history of poisoning. The sole cause for the trouble was apparently the fact that three years previously the patient had been obliged to work for hours at a time in cold cellars, and she thought that attacks of hemoglobinuria had followed especial exposure to the cold. A test was made one morning in the following way: Having passed urine which was perfectly free from blood, she walked about in her stocking-feet for fifteen minutes in a cold room, and passed urine again. The second specimen was bloody and the diagnosis of paroxysmal hemoglobinuria was confirmed.

STEINER mentioned the case of a man aged thirty-three years whose urine by day was normal, while that passed between 1 and 9 A.M. contained a large amount of albumin, casts, and hemoglobin. This symptom had nothing to do with sleep since when he remained awake at night he passed bloody urine, and if he slept by day the urine remained clear. Numerous examinations failed to demonstrate the presence of animal parasites or germs. The diagnosis remained absolutely obscure.

SENATOR said that various remedies, such as iodid of potassium, quinin, and amyl nitrite, have been advocated as cures of hemoglobinuria, but he had never convinced himself that they were of real value. The sole therapeutic resources seemed to be to protect the individual from cold and to look after his nourishment.

LENNHOFF showed as an instance of traumatic dilatation of the heart a boy aged nineteen years, whose health was good until last August. At that time he was helping to lift a cart, when the horse shied and pinched him between the cart and a lamp-post. He was immediately seized with palpitation and shortness of breath which continued up to the time of report. Whenever he made the slightest exertion, as in stooping, running, or lifting anything, he became extremely cyanotic, with cold hands and feet. The heart dulness as made out by percussion, extended from the left anterior axillary line three-fingers, breadth to the right of the sternum. The impulse of the apex to sight and touch was widely spread out. There were no murmurs. His pulse was irregular and of medium

strength. The diagnosis was that of acute traumatic dilatation of the heart.

MEISSNER spoke of the importance in such cases of recognizing the exact position of the ventricular septum. He said this could be determined by measuring the temperature of the skin. The difference of temperature over the two sides of the heart is considerable. It may reach two or three degrees Celsius (3.6° to 5.4° F.). In cases of dilatation of the heart by determining which ventricle has suffered, we may learn whether hypertrophy or dilatation has taken place.

SENATOR suggested that in the case before them there may have been a hemorrhage into the pericardial sac.

At the Imperial Royal Society of Physicians in Vienna, November 18th, HABART exhibited three soldiers in each of whom a free opening of the pleural cavity had preserved life. The first patient, with suicidal intent, had shot himself in the head four times, had cut his wrist-joint, and stabbed himself in the region of the heart. The last wound was the most serious since it opened the pericardial and left pleural cavities, and tore the lower lobe of the left lung. Habart resected the fifth rib, surrounded the heart with sterile gauze, removed a pint and a half of blood from the pleural cavity, and introduced a layer of gauze between the heart and lungs, and between the heart and the diaphragm. The gauze was left in position until danger from hemorrhage was passed. Recovery was perfect. The second patient was stabbed in a drunken brawl, and as some time had elapsed before operation, both blood and pus were found in the pleural cavity after the sixth and seventh rib had been resected. The cavity was wiped out with sterile gauze and drained with iodoform gauze. This patient recovered with a fistula. The third patient suffered from a streptococcic pleuropneumonia, and was much reduced by chills and high fever. Suspecting a gangrenous focus Habart made a wide opening into the pleural cavity, stripped the exudate from the lung, and scraped out the underlying gangrenous focus. Recovery was perfect.

LORENZ described the results in his hands of Calot's forcible reduction of tubercular deformity of the spine. In order to do away with the great number of assistants required by Calot (three at the head and two at the feet) Lorenz put the child in an extension apparatus, and by means of a screw and pad he exerted slow pressure upon the deformity. Nevertheless, this procedure, just as Calot's method of treatment, was followed by severe paralytic symptoms of the lower extremities, bladder, and rectum, which could only be overcome by the most careful treatment by physicians and nurses for several months. Anatomically, the improvement seemed to be due to circulatory changes which followed the forced extension of the spine. There was no healing in the sense that the gap between the bones became filled up by new bone. It would be unreasonable to expect this, considering the tubercular condition of the vertebræ, and radiographs showed that no such new growth of bone takes place. On this account the deformity usually recurred, and Calot's method of treatment, according to Lorenz, is only indicated in cases of paralysis of the lower extremities which cannot be treated in any other way. Historically, it is an interesting point that Calot is not the discoverer of this method of treatment, but that it was shown to him by a layman, a manufacturer or orthopedic apparatus in Lens, a man named Crud.

## SOCIETY PROCEEDINGS.

### THE SANITARY CLUB OF BUFFALO.

*A Stated Meeting, Held at Buffalo, December 14, 1898.*

HENRY R. HOPKINS, M.D., President, in the Chair.

THE President stated that the object of the meeting was the consideration of the sanitation of camps of instruction but, as several of the participants had not understood this limitation, discussion was called for also on camps of mobilization. A circular letter had been sent to governors of States, general military officers and editors of medical journals requesting an expression of opinion as to the advisability of establishing permanent camps of instruction by the Government, each to be fully equipped from a sanitary standpoint and to be occupied as needed. Of a large number of replies, all but two favored such a proposition. Surgeon-General Sternberg asked to be excused from replying definitely, on account of the lack of time to give the matter thought. Brigadier-General H. C. Merriam, headquarters of the Department of California, expressed the opinion that "four such camps ready for occupation in April, would have saved much money and life." Major-General William Montrose Graham, headquarters of the Second Army Corps at Camp Meade, said that "as a rule, camps of State troops allow too much comfort." He ascribed much of the recent suffering in the United States camps to the fact that the troops were not accustomed to hardships and to too great crowding. He expressed gratification that the public was taking an interest in the health of the soldiers.

DR. HOPKINS called attention to the greater responsibility devolving upon the medical officers in the late war as compared with the Civil War. In the latter, we had opinions as to the communicability of typhoid, diphtheria, and dysentery; at present, the work of bacteriologists has replaced these opinions with accurate knowledge. The disregard of the life of the common soldier which had characterized campaigns of the past, especially in Europe, had in it an element of heathenism. "In America, the common soldier is known to be a member of the nobility, the teamster and the company cook are members of the royal family and it is exceedingly important that this royal family of the people should be protected when it takes its life in hand for the defense of the country."

LIEUTENANT PETER C. HARRIS, Quartermaster of the Thirteenth United States Infantry, read a paper on

#### THE CAMP OF INSTRUCTION.

He emphasized the value of camps of instruction both for the Regular Army and the National Guard and said that they are even more necessary for the instruction of officers than of enlisted men. The raw recruit cannot

keep up with the trained soldier, largely because development of the heart and blood-vessels is deficient. Up to 1894, recruits were drilled for four months at recruiting stations before even being sent to regiments and, after arrival at army posts, two to four-months' additional drill were usually necessary before the recruit could be made available for the routine life of the soldier. For many reasons, this plan, which had been superseded, was the wisest course. The National Guard can scarcely be compared with the volunteer forces of Europe. In England, volunteers can be called out for from two to six weeks annually. In Canada, at least twelve-days' training are given in camp. Continental reserves and other troops that might be compared to the National Guard receive two to four-months' drill, annually. With certain modifications, he thought that the Austrian Landwehr might be taken as a model for the National Guard. Members of the National Guard should have, say, four-weeks' camp instruction during the summer and fall and the members from small towns would need more instruction than those who could have regimental drill at home. In States having only a few regiments it might be well to call out the entire Guard every two years, in order that all troops should have the experience of drilling in considerable numbers and of affording experience for officers. The Guard should be more liberally provided for by Congress and camps should be selected by the ranking surgeon, an officer from line headquarters, and a representative of the quartermaster's department. Speaking of the lessons to be derived from the late war, he said that at Tampa the rations were, at first, issued for thirty days, but this was found inconvenient for the regimental quartermasters, especially as the regimental wagon-trains were cut down below the theoretic minimum. Every regimental quartermaster condemned the attempt to generalize the wagon service and declared in favor of a sufficient regimental wagon-train. By means of diagrams, the various arrangements of regimental camps were shown. As a rule, the nearly square rectangle was preferred, company kitchens on one flank, company and regimental officers on the other, with the sinks of the men and the officers, respectively, on the extreme limits of the flanks, 150 or 200 feet removed from the nearest tents. On some grounds, the slope made it preferable to arrange the camp with four rows of company tents, all facing the same way. This, however, made a very long camp—about 1000 feet. The minimum allowance for small wall tents is six men to a tent. At present, the Thirteenth Regiment (now at Buffalo) has an allowance of a tent for each three men. (The men are quartered in barracks, however.) In the case of a permanent camp, it is well to leave enough space between tents so that they may be shifted every few days without disarranging the plan of company streets. At Tampa the men remained for a week or two in good health and then fever began to develop. The surgeon ascribed this, in part, to the closeness of the tents but it was impossible to change them, on account of the limited amount of space at their disposal. With conic wall tents, about 17 feet in diameter, the minimum allowance is one to seventeen men and, to allow sufficient space, only ten men should be put into one tent. The soil at Tampa was soon polluted and the sinks became offensive as it was impossible to dig them deep enough in the sand.

C. E. P. BABCOCK, Assistant City Engineer of Buffalo and late Major of the Sixty-fifth New York Volunteers, presented a paper on

### CAMP SEWERS.

The expense of draining a camp with tile is 33–36 cents per foot for 6-inch pipe; 35–40 cents for 9-inch pipe; 43–50 cents for 12-inch pipe. With the regimental camp arranged nearly in a square, the total cost would be about $1000. To prevent the necessity of digging up the company streets, he thought it better to lay the tile along one flank of the camp, beginning with 6-inch pipe at the officers' sink and ending with 12-inch pipe at a discharge tank two or three hundred feet from the other end of the camp. If wooden tent-floors were used and the streets graded, rain would take care of itself. Four days would be ample time for sewering a camp and only two days would be needed if the regiment included a few members who could lay tile and if the quartermaster's department would issue picks and shovels.

MR. L. H. KNAPP of Buffalo, Assistant Superintendent of the Buffalo Bureau of Water Supply, read a paper on

### CAMP WATER-SUPPLY.

The conveyance of water to a camp is rather a matter of convenience than of sanitary necessity. If water is taken from a stream, a dam may be built or an intake tank may be dug. If the soil is porous, it would be better to dig a well near the bank of the stream, to allow filtration. Fords, watering-places and swimming-holes should be located below the water source. Wrought-iron pipe, with screw-joints, could be transported and put into position at any site that would be occupied for more than a few days. The pipe should be buried five feet, and this work, and the placing of a portable pump should not occupy more than twenty-four hours. Thirty-feet pressure would be required to give a fair flow at all taps at once and more than this would allow unnecessary waste. Seventeen taps should be provided, one at each company street, one each at regimental headquarters, officers' mess, guard tents and stable and quartermaster's department. When neither streams nor springs were available, driven wells could be made. Usually, steam would be most convenient for pumping water but, near a large city, electric motors could be used. If windmills were relied upon, a large reservoir would be necessary on account of the uncertainty of power. With a steam-pump, drawing water from a spring or stream near camp, the plant would cost about $4000 and the cost of operation would be about ten dollars a day.

EDWARD CLARK, M.D., of Buffalo then read a paper on

### GARBAGE AND SEWAGE DISPOSAL.

He ascribed the terrible death-rate in camps during the Middle Ages to unsanitary measures, particularly the accumulation of excreta. At present, the discipline of the regular army is such that the health of the soldier is

better looked after than that of the average civilian. He pointed out the prime importance of a pure water-supply, even sewage being inadequate without it, as rain cannot be depended upon to flush the drains. The sewers should not discharge into streams but onto the soil, the European system of sewage farms having been proved to be practically innocuous. The burial of garbage, as advised by the Surgeon-General, is a dangerous method on account of the liability of development of a malarial focus. The ideal method of disposing of garbage is cremation. An estimate of expense is impossible because the present plants are in the hands of private contractors who will not give out the actual cost of management.

MR. H. C. GARDNER of Buffalo discussed in his paper the subject of

CAMP WALKS AND STREETS.

He considered concrete much superior to asphalt and also cheaper if a supply of sand and gravel were at hand upon which the regiment could draw without other cost than that of labor. Under these circumstances, it would cost about ten or fifteen cents a square foot. The elongated camp would comprise about 219,705 feet; the condensed camp 141,466 feet. By laying concrete all over the area covered by tents, thorough flushing of the camp would be possible.

M. A. VEEDER of Lyons, N. Y., then read a paper on

THE RELATIVE IMPORTANCE OF FLIES AND WATER-SUPPLY IN SPREADING DISEASE.

From the practical sanitary standpoint, camp diseases can be divided into intestinal and malarial, the former including typhoid and yellow-fever, dysentery and cholera. In camps, malaria is spread almost entirely by water, intestinal diseases almost entirely by flies. The failure of measures directed to the water-supply in the Cuban campaign, he ascribed to this fact. Even now, typhoid is rife in Manila and Honolulu. In the recent campaign in Fashoda, although the climate was especially dry and general conditions as to water-supply favorable, typhoid was the greatest scourge of the army. An epidemic of dysentery was cited, taken in hand when forty cases had developed with ten deaths, the disease having spread from house to house by short leaps. After adopting measures to prevent access of flies, not a single new case developed. The progress of a camp disease by short leaps, should suggest that it was borne by flies while a general dissemination should call attention to the water-supply. Fly-borne epidemics also follow the direction of the wind. In large cities, with general water-supplies, free drainage and absence of privy-vaults, water is the great carrier of disease, whereas, camps, like small villages, have most to fear from flies. For this reason, typhoid is more or less prevalent at all seasons in the cities, usually only in the dry and sultry weather of early autumn in small villages.

He strongly condemned the practice of burying typhoid excrement, citing a series of little epidemics that could be traced to a nurse who had followed this method. After the nurse had herself succumbed to the disease, the epidemics ceased. Typhoid bacilli will penetrate to the surface of the soil, if buried. Disinfection is necessary and, both on account of its color, its permanence after evaporation and efficiency, copper sulphate is to be preferred. In camp, on account of the practical impossibility of diagnosing incipient typhoid, all excreta should be disinfected. The coloration of the ground would show just how far the disinfection had been successful. Volatile disinfectants are not so serviceable as non-volatile. The Government plan of furnishing large, portable, water-tight tanks for use as sinks, is good in theory but scarcely practical. The Indians avoid sickness by frequently moving their camps. Burial of feces could be relied upon to afford protection against infection by flies for a few hours. Boiling would render water safe to drink and, even against malaria, this precaution would afford almost complete immunity as the conveyance of this disease by mosquitoes has been greatly exaggerated. Not only knowledge but discipline is necessary to protect the soldier, and sanitation under the guns of the enemy is a difficult matter.

CAPTAIN NORTON in discussion said that camps should be pitched so as to drain toward the flank, while most that he had seen had been arranged so that the drainage swept from one end to the other. The greatest bulk of sewage was from the sinks, baths, kitchens and hydrants of company streets. Under proper conditions the discharge of sewage into streams is advisable, though not the ideal method.

DR. GREENE in speaking of water-supply gave the preference to spring water, then in order that from deep wells, rivers and lakes, and shallow wells. For permanent camps a filter might be necessary and the only practical method is sand-filtration. He told of visiting a camp during the late war, in which two regimental camps were pitched so that the ground sloped toward their common well.

MAJOR SMITH of the Sixty-fifth New York Volunteers, mentioned Peekskill, N. Y., Mt. Gretna, Pa., and Seagirt, N. J., as ideal camps of instruction. He made a sharp distinction between such camps of instruction and the camps of mobilization about which so much criticism has been offered. Under the circumstances of occupancy, it had been impossible to prevent sickness in the camps, although such matters as policing, disposal of garbage, etc., were within the jurisdiction of the medical officers. (Major Smith, although a surgeon was a line officer in the volunteer army.) Burning garbage would be impossible in the face of the enemy and, at Camp Alger, large heaps of garbage accumulated that were too moist to burn, crematories not being supplied. Burial was therefore necessary. In a camp that had been occupied several months, the disposal of garbage would best be effected by contracting for its removal just as in the case of cities. At Camp Black, the farmers gladly removed the garbage on account of its value as a fertilizer. For the same reason, the owner of the land at Camp Alger would not allow garbage to be removed unless he were paid for it and this deterred those who would willingly have removed it if it had been given to them. Even the removal of bones and fat was stopped. The health of the camp even suffered

because the kitchen attendants were bribed with liquor by some one who wished to get the perquisites of garbage. The sinks, as they became full, were covered over and so much ground was occupied in this way that there was serious danger of a horse plunging into the soft spots and breaking a leg. A middle course had to be adopted regarding sinks. If too near, flies became a source of danger, if put too far away, men, especially with beginning diarrhea would defecate on the way to the sinks. The flies seemed to keep track of mess calls and would swarm from the sinks to mess at the meal times. Unless a camp were pitched like a saddle on a ridge of ground, he did not approve the placing of sinks on both flanks, on account of the double danger of infection in heavy rains. In one instance, he had observed a stream of rain water coursing from the officers' sink directly through one of the tents. Instead of 200 or 300 cases of typhoid in a regiment, as was the case with the Sixty-fifth New York Volunteers (from Buffalo) he felt that practically every one would have suffered if the camp had been occupied a few weeks longer. Disinfectants were not supplied till July and even then they were not to be had regularly.

MAJOR BRIGGS, Surgeon of the Sixty-fifth New York Volunteers, cited the Crimean War, in which the Russians lost 30,000 men from wounds, and 600,000 from sickness. During the Civil War, 104,000 succumbed to wounds, 186,000 to disease. The only war in history in which the number of deaths from wounds exceeded that from disease was the Franco-Prussian, which was short and sharp, fought in a salubrious climate and in which all possible sanitary precautions were taken. Alluding to his own experience as Health Physician when wells were in vogue in Buffalo and to some thoroughly studied epidemics of typhoid, as that at Plymouth, he said that most of the surgeons went into service impressed with the idea that typhoid was a water-borne disease, and that the consideration of flies as a practical factor in etiology had not been thought of till after the epidemics in camp were in progress. The scientific consideration of the water-supply of Camp Alger was like the subject of ophiology in Ireland—there wasn't any. The wells sunk by contractors were put wherever the digging was easiest. The water supplied to the Sixty-fifth Regiment was clear, cold, and odorless, but the drainage of the camp was toward it. A week after camp had been moved and after a hard rain for three or four days, although nothing that could be picked up or swept up had been left behind, there was still a stench from the deserted ground, so thoroughly had the soil been fouled. In the Sixty-fifth Regiment and in some others, the epidemics of typhoid seemed to strike by companies and, for two or three weeks other companies just across a narrow street, having the same food, water, air, and otherwise in the same circumstances, would be free from disease for two or three weeks. (This was explained by Major Smith on the basis of separate milk contracts for the various companies.) The most unsanitary regiment in camp was the Third Virginia. In spite of all discipline, their sinks would overflow in all directions, yet they had the least sickness. The most sanitary regiment was the First Connecticut, and this arrived from service in Maine without a sick man about the first of August, when it had the experience of the regiments previously in camp to serve as a warning. A wholesome spot was selected for their camp and their surgeons adopted every possible sanitary precaution, yet before the Sixty-fifth Regiment left for Buffalo, and within a few days afterward (about the first of September) two train loads of sick were sent home from that regiment. Major Briggs characterized the practice march as an invention of the devil. In a hot, infected country, men would drink and bathe in every water hole that they could find, without regard to its unwholesomeness.

W. W. POTTER, Major and Surgeon, United States Volunteers, reminded the audience of the threefold division of camps, with reference to military hygiene: the permanent camp of instruction, the camp of mobilization, and the bivouac. One of the greatest sources of danger for the soldier is the camp. The economic value of the soldier to the government makes it necessary that the first should be perfect in every detail at whatever direct cost. Eight or ten months are spent in teaching the recruit to keep clean and obey orders but, on a practice march, no amount of discipline will keep the soldiers from drinking where they ought not to. The trained soldier will supply himself with cold coffee or something of the sort in his canteen and will not be so likely to drink impure water as the volunteer. It should be a matter of local pride that the first scientific study of the spread of typhoid infection through excreta was made in Erie County in 1843. The late war was too short to allow great experience to be accumulated. In the 113 days, more men and greater territory were conquered than in a corresponding period in all history. In civil life forty-eight per 1000 die of typhoid, a preventable disease. In August the death-rate for the entire army had reached only forty per 1000.

DR. BENEDICT asked if an estimate could be made of the men in the Sixty-fifth Regiment who were immune to typhoid. In view of the fact that between a sixth and a quarter of the entire regiment had contracted this disease, it would be interesting to know what proportion of those theoretically infectable had failed to contract typhoid.

DR. BRIGGS replied that such statistics were in course of preparation but could not as yet be announced. The figures given of the prevalence of typhoid in the army were somewhat misleading as some of the cases were really of a different nature but all had been grouped together.

MR. WILSON of the Health Department, a veteran of the Civil War, emphasized the influence of the sutler in determining sickness among the soldiers.

## REVIEWS.

STUDENTS' HISTOLOGY. A Course of Normal Histology for Students and Practitioners of Medicine. By MAURICE N. MILLER, M.D., late Director of the Department of Normal Histology in the Loomis Laboratory, University of the City of New York. Revised by HERBERT M. WILLIAMS, M.D., Professor of Pathology

and Bacteriology, Medical Department, University of Buffalo. Third Revised Edition. New York: William Wood & Company, 1898.

IN the present edition of this well-known text-book the general plan and arrangement existing in former editions has been preserved, but the subject has been carefully brought up to date, so that a fair presentation of the subject of histology is embodied in the present volume. As an elementary work for the student we know of no better book from which he can obtain all the necessary data for the use of the microscope and for the preparation and examination of normal tissues. All the minor details in microscopical technic are so fully presented that it is a pleasure to the beginner to have before him a book of this nature.

The illustrations are all from pen-drawings by the author and while many are diagrammatic, still they are of much assistance, and are far preferable to some which we have recently observed and which have been directly photographed. On the whole the book is specially commended to all beginners in the study of histology.

HISTOLOGY—NORMAL AND MORBID. By EDWARD K. DUNHAM, PH.B., M.D., Professor of General Pathology, Bacteriology, and Hygiene in the University and Bellevue Hospital Medical College, New York. New York and Philadelphia: Lea Brothers & Co., 1898.

WHEN the rapidity is noted with which new works and revised editions of the older books on this subject have appeared in late years, it is at once significant of an increasing interest in this science and of a demand for reliable books on the subject. The work before us comes under this heading, and, moveover, is unique, in that the histology of diseased processes receives consideration. Part I. is devoted to the normal histology of the various tissues and organs and occupies more than one-half of the volume. The chapter on the cell is especially well handled, and the description of the various processes occurring in karyokinesis is given in a particularly clear and lucid manner so that the average student can grasp the subject without great difficulty. The chapter on the central nervous system receives that care and attention which the recent work in this line demands.

Part II. of the work is devoted to the histology of the morbid processes and the chapters deal successively with degenerations and infiltrations, atrophy, hypertrophy and hyperplasia, metaplasia, structural changes due to and following damage, and tumors. These various subjects are well described and presented in a satisfactory manner.

Part III., and the last part of the work, deals with histologic technic, and we are surprised to find that the author still adheres to the French word *technique*, which is no longer used by the more careful writers. In this part of the book the author has attempted to condense too much information in a few pages, and the result is an unevenness not manifested in the previous chapters. The methods of fixation, hardening, impregnation, embedding, cutting, staining, and mounting are described, also the methods for the examination of urinary sediments, for the preparation of cover-glass smears, for the examination of sputum, and pus, and blood-smears; for the examination of bacteria in cover-glass preparations, and in the hanging drop, all of which procedures are but briefly outlined and more properly belong to works on bacteriology and clinical microscopy.

Throughout the pages are many illustrations, some of which are original while others are borrowed from the very best sources. They all, however, are admirably drawn and produced, and add distinctly to the value of the work. The paper and bookmaking is beyond reproach. The book is worthy of the cordial support of the profession and is creditable alike to author and publishers, and we take much pleasure in commending it not only to students but to teachers as well.

THE PRINCIPLES AND PRACTICE OF MEDICINE. By WILLIAM OSLER, M.D., Professor of Medicine at the Johns Hopkins University. Third edition. New York: D. Appleton & Company, 1898.

THIS, the third edition of this well-known and widely read work has been entirely revised and enlarged. The brilliant author of this splendid treatise justly says that at the present rate of progress in all departments a text-book six years old (the first edition) needs a very thorough revision. This he certainly has given to the third edition, either entirely rewriting or adding as new articles the following subjects: vaccination, beri-beri, the bubonic plague, cerebrospinal fever, pneumonia, Malta fever, yellow fever, dengue, influenza, leprosy, glandular fever, the gonorrheal infections, cancer of the stomach, the gastric neuroses, enteroptosis, the cirrhoses of the liver, jaundice, the diseases of the bile passages, diseases of the pancreas, diseases of the thymus gland, diseases of the spleen, lymphatism, Addison's disease, encephalitis, neurasthenia, erythromelalgia. Other articles show the addition of new material.

The thorough revision which the work has undergone brings the subjects treated up to date in every respect. Not since the appearance of the fine treatise on the "Principles and Practice of Medicine" by Hilton Fagge has England or America produced such a worthy publication. It is no more than just praise to say that Dr. William Osler's text-book is the best book of its kind in the English language, and surpasses in many respects the so-called "systems of medicine" which have appeared in the past few years in such generous profusion.

It is difficult if one were searching to find defects to indicate anything which is wanting in this book yet it seems to the reviewer that some mention should have been made by the author of the presence of the Filatow-Koplik spots on the buccal mucous membrane as an early characteristic sign of measles. The sign is of great importance as it precedes the development of the eruption by at least twenty-four hours, and enables one to isolate a child living in an institution or hospital before the diagnosis of measles would otherwise be made. Thus many epidemics in foundling asylums, hospitals, and other institutions where children are treated may be avoided by examining the mouth for these spots in every suspicious case of coryza.

No praise would be two generous to express the value of this book to students and practitioners, since it supplies all useful knowledge in reference to any subjeet to which either may refer. We hope that it will periodically receive the same studious revision whenever the progress of medicine demands it.

CLINICAL LECTURES ON MENTAL DISEASES. By THOMAS S. CLOUSTON, M.D., Lecturer on Mental Diseases in the University of Edinburgh. New (fifth) edition. Illustrated. Philadelphia and New York: Lea Brothers & Co., 1898.

THIS text-book, which has passed through so many editions, and in all, despite the contemporaneous publication of innumerable volumes on psychiatry, has maintained its place as a standard work, needs no further notice than the mere mention of its reappearance in an improved form. Dr. Clouston's book has always been recognized as a classic, both for study and for reference.

The author, in avoiding all attempts at an artificial classification of the diseases considered, hits upon a descriptive arrangement which makes the book clinical as well as didactic, simple as well as complete, entertaining as well as instructive. The charming style, so attractive in the previous editions, is not lost in the new one, and, as before, the reader's attention is held through all the chapters, both by the material presented and the manner of its presentation. A set of colored plates has been added and the volume has been made of more convenient size.

NASAL OBSTRUCTION: The Diagnosis of the Various Conditions Causing It and Their Treatment. By W. J. WALSHAM, M.B., C.M. Aberd., F.R.C.S., Eng., Senior Assistant-Surgeon, Lecturer on Surgery, and Surgeon-in-Charge of the Orthopedic Department, St. Bartholomew's Hospital, etc. New York: William Wood & Co., 1898.

THE author has applied to the diagnosis of the conditions which may give rise to nasal obstruction, the method of proceeding from the manifestations of abnormal condition or of impaired function, as they present themselves to rhinoscopic examination, and thus compose a group of signs and symptoms, to which, finally, a diagnostic label is attached. This method of working from the known to the unknown, from the condition of the parts to the disease which they indicate, has been constantly employed by the author as a teacher of general surgery. It is a reversal of the usual plan of first describing the disease and then discussing how it may be diagnosed from similar affections.

The volume under consideration treats of the subject exhaustively, but the repeated enumeration of facts determined by physical examination produces some confusion. To avoid excessive repetition one is obliged to omit whole passages, to skip about from paragraph to paragraph, at the risk of losing logical connex, in accordance with the author's instructions. For example, on page 56 one reads: "If the obstruction has been attended by profuse attacks of epistaxis, pass on to section 63, otherwise begin below at section 59."

The chapters on the treatment of the various causes of obstruction are separated from those on diagnosis, somewhat complicating matters, while the description of the operative procedures, and especially of the after-treatment, is too brief. The book may well be of service for occasional reference in a special obscure case, as the entire range of nasal and nasopharyngeal diseases, as well as the affections of the accessory sinuses, have been considered.

A TEXT-BOOK OF MECHANO-THERAPY. By AXEL V. GRAFSTROM, B.Sc., M.D., Late Lieutenant in the Royal Swedish Army; Late House Physician, City Hospital, New York. New York: O. M. Foegri & Co., 1898.

THIS small volume is hardly to be taken seriously by the physician for it is rather elementary and lacking in detail. For nurses and students pursuing practical studies in massage it will prove a useful compend. It is illustrated with eleven pen-and-ink sketches.

## THERAPEUTIC HINTS.

***For Asthmatic Paroxysms.—***

℞ Morphinæ sulphat. . . . gr. ⅙–¼
Strychninæ . . . . . gr. $\frac{1}{30}$–$\frac{1}{20}$
Hyoscini hydrobromat. . . gr. $\frac{1}{100}$.
M. Sig. One dose.

***Treatment of Acne Rosacea.*** — JUDASSOHN advises the following program: wash the face at night in very hot water, adding borax or soap if there be much sebaceous secretion. Dry carefully and massage with this ointment, the ichthyol and resorcin being increased according to the toleration of the patient:

℞ Ichthyol . . . . . *m.* xvi–lxxx
Resorcin . . . . . gr. xvi–xlviii
Lanolin . . . . . ʒ vi
Ol. olivæ . . . . . ʒ iiss
Aq. dest. . . . q.s.ad. ℥ iss.
M. Sig. External use.

In the morning bathe with water, and if the acne be severe apply one of the following antiseptic washes:

1. ℞ Thymol . . . . . gr. viii
Spiritus . . . . . ℥ ii
Aq. dest. . . . . ʒ iii.
M. Sig. External use.

2. ℞ Hydrargyri chloridi corros. . gr. viii
Spiritus . . . . . ℥ ii
Aq. dest. . . . . ʒ iii.
M. Sig. External use.

***For Chapped Hands, Face, etc.—***

℞ Salol . . . . . gr. xv
Spiritus . . . . . ℥ i
Glycerini } aa . . . . . ℥ ss.
Aq. rosæ }
M. Sig. External use.—*Lutaud.*

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